THE

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N. S. DAVIS.

PUBLISHED WEEKLY.

Vol. VIII. CHICAGO, MARCH 26, 1887. No. 13.

ORIGINAL ARTICLES.

DEEP TUBING OF THF LARYNX AS A SUBSTITUTE FOR INTUBATION.

With a Report of Nine Cases and Presentation of New Instruments.

Read before the Chicago Medical Society, March 7, 1887.

BY A. E. HOADLEY, M.D.,

PROFESSOR OF ANATOMY, CHICAGO COLLEGE OF PHYSICIANS AND SURGEONS, PROFESSOR OF SURGERY IN THE CHICAGO POLICLINIC, ETC.

In April, 1886, I became convinced that intubation of the larynx was a justifiable surgical procedure, and a valuable substitute for tracheotomy in selected cases. I therefore procured a set of the O'Dwyer instruments and tubes. Although I had handled the tubes and seen them introduced, and a year previous had introduced them myself on the cadaver, I did not until this time give serious consideration to the position of the tube after the introduction. I had no difficulty in coming to a conclusion in this matter. From my knowledge of the larynx, and the contour of the head of the tube, I decided that the head of the tube was designed to rest within the larynx, with its projecting flange resting upon the false vocal cords, with the straight part of the tube behind resting against the posterior straight wall of the larynx. (Fig. 1.)

It was not until I had in this manner tubed five cases that I was informed that it was not the design of the inventor, Dr. O'Dwyer, to have the head of the tube rest within the larynx, but on the contrary to have the flange project laterally and posteriorly above the opening into the larynx, resting upon the arytenoid cartilages behind, and the aryteno-epiglottidian folds on each side, with the head of the tube in such a position that when the epiglottis is closed, it would come in direct contact with the tube, closing its orifice but allowing its flange to project beneath it. (Fig. 2) It now became necessary for me to either acknowledge my error and turn the tube around, or justify the position and claim an improvement. I examined the five cases and was fully convinced that the deep position was at least worthy of further trial. I can now present a summary of nine cases which I have thus treated. Seven of the operations were performed for other physicians; for Drs. R. N. Hall, G. M. Emrick, E. E. Holroyd, Wm. Rittenhouse and Caldwell. Two were performed where there had been no physician in attendance until I was called and found it necessary to tube immediately. I have not as yet had an opportunity of watching the patients as closely as I could desire, and for the main facts relative to the subsequent behavior of the patients I am indebted to the physician in attendance. Of the two cases above referred to, I saw one six hours after the operation. She was perfectly comfortable as far as breathing and wearing the tube were concerned. The other died twelve hours after the operation, before I saw her a second time.

FIG. 1.—Deep tubing.

FIG. 2.—Intubation.

The ages of the patients ranged from 2 to 6 years. All had diphtheritic laryngeal stenosis. They were all bad cases and all died in from twenty-four hours to four days after the operation. The stenosis was promptly relieved in all. Eight out of the nine were able to drink several consecutive swallows immediately after the operation, and continued to do so as long as they could swallow. The eight suffered little or no pain from the presence of the tube, nor was the cough particularly troublesome. Four coughed but very little. In one the presence of the tube in the larynx did not excite cough; on the contrary, there was less coughing than before the tube was introduced. In one case the tube was coughed out, and a larger tube was introduced, which remained until the child died from extension of the exudate below the tube. In no case was there subsequent obstruction above the tube. In one case the obstruction seemed to be in the fauces and pharynx, and I feared that tracheotomy would be necessary, but "deep tubing" gave prompt relief. In two cases while

pressing the tube down deep into the larynx, it was felt to slip by an obstruction and pass beyond reach. In these two cases I believe the head of the tube was lodged in the ventricle of the larynx, resting upon the true vocal cords. There was no unusual inconvenience from the presence of the tube in this situation. I removed the tube in one of these cases and I had as little difficulty as in any, which I think would be equally true had the child been living. I might state while giving this opinion, however, that I have never extracted a tube from the living subject.

One case suffered severe and continual pain from the presence of the tube, and could not drink one drop without strangling and having a violent fit of coughing following the attempt; she was fed by means of a tube in the œsophagus. She died on the fourth day from pneumonia, the development of which was probably favored by the irritation of the tube. This was Olga L., a girl 5 years of age, a patient of Dr. Emrick's. About two years previous, she swallowed, by mistake, some concentrated lye, causing extensive destruction of the tissue followed by a violent inflammation. After a long and desperate struggle she recovered her general health; but there remained two almost impervious strictures of the œsophagus. She had been under my care six months for the surgical treatment of the strictures when she contracted diphtheria, for relief of which the "deep tubing" was practised. It was to these changes in the pharynx and œsophagus caused by the lye that I attributed her intolerance of the laryngeal tube.

In seven cases death was caused by constitutional diphtheria, in one by extension of the exudation below the tube, and in one from pneumonia. While this summary of nine fatal cases of intubation of the larynx for diphtheria would show that intubation does not cure; it does not prove that intubation is an unjustifiable practice. On the contrary, it shows that the practice is one capable in the simplest manner of affording the greatest possible relief and allowing the patient to die a less horrible death than that of suffocation, and at the same time give one more chance for life.

In comparing the two methods of introducing the tube, I would call attention to what I regard as the most objectionable feature of the O'Dwyer method. It is the projection of the head of the tube over the top of the larynx in such a manner that it prevents the glottis from folding down and adapting itself to the top of the larynx in the usual manner. This leaves a margin of laryngeal mucous membrane exposed, which has been in the habit of being covered at every act of deglutition. The projections of the tube do not cover it perfectly, so that in every act of swallowing the food is allowed to come in contact with this surface, which is excessively sensitive to everything but air, and must necessarily excite coughing. I have no doubt but what the glottis will close the orifice of the tube perfectly, thus preventing any food from getting into the tube, but it cannot close the larynx by the side of the tube, and food, fluids especially, are forced into the larynx, thus causing the most distressing paroxysms of coughing at every attempt at swallowing. All this is obviated by the method that I have adopted, as the head of the tube is within the larynx and well below the opening, so that the glottis does not touch the tube and can therefore perfectly guard the larynx.

In reference to the removal of the tube, it is my opinion that the tube can be more quickly engaged by the extractor while it rests within the larynx, than while the head of the tube rests above the larynx. The head of the tube being surrounded by the upper extremity of the larynx, greatly facilitates the operation, as it is not easy to get the extractor down by the side of the tube, which is the source of the greatest annoyance with the tube in the high position. With reference to the danger of introducing the tube into the trachea, I would state that it is certainly a remote danger, as any one will admit that attempts to push the head of a well fitting tube beyond the chink.

The modifications in the tube that have suggested themselves for the better adaptation to this mode of intubation, and which have been constructed for me by Sharp & Smith, of Chicago, are:

Shortening the tube to the length of the larynx, or perhaps a trifle longer. (Figs. 1 and 3.)

FIG. 3.

FIG. 4.

Making the head of the tube conform more nearly to the shape of the interior of the upper part of the larynx.

Making the upper surface of the head of the tube slightly cup-shaped for the purpose of favoring the introduction of the extractor.

Having that portion of the posterior border of the tube, which corresponds to the arytenoid cartilages stand on a plane anterior to that of the rest of the tube, so that the pressure at this point may be slight. As the arytenoids are supported by muscles we should avoid putting them on the stretch. Constructing the obturator so that it will project three-eighths of an inch from the lower end. My tube, being a little shorter than the most convenient length for introduction, the longer tip of the obturator enables one to pass the tip to the proper position below the chink, when the tube should be detached, and pressed home with the finger before the obturator is withdrawn.

The greatest objection to using the tubes of the present construction for "deep tubing" is their length. The O'Dwyer tubes (Fig. 4) when placed deep in the larynx, will reach to the seventh ring of the trachea, as shown by an autopsy. This, owing to the mobility of the lower end of the tube in the trachea in the varying positions of the neck, is a source of irritation exciting cough and inducing pain. One of my patients would invariably point to that locality when asked to locate the tube.

Finally, I would recommend "deep tubing" of the larynx as being preferable to "intubation," even though the long tubes are used, holding that long tubes are preferable only in very exceptional cases.

No. 683 Washington Boulevard.

EMMET'S NEW OPERATION FOR PROLAPSE OF THE POSTERIOR VAGINAL WALL,

Or So-called Laceration of the Perineum.

Abstract of a Paper read before the Obstetrical Society of Philadelphia, February 3, 1887,

BY J. M. BALDY, M.D.,
OF PHILADELPHIA.

Since I have become familiar with the subject it has each day seemed more incomprehensible to me why the Emmet operation has not come into more general use. I have come to the conclusion that the fault lay in defective description of the operation as set forth in most cases, and in the fondness of men for working on the skin perineum, and not in the operation *per se*. The operation, as described by most of the writers on the subject, is hopelessly mixed up with long discourses on side issues. Too much is left to be understood from diagrams alone, with insufficient attention to details in the procedure. These are prominent faults in the descriptions given by Drs. Emmet and Dudley. Dr. Dudley also obscures his paper, as presented in "Pepper's System of Medicine," by introducing several "modifications." The first of these is one of the essential steps in the operation, though not clearly described by Dr. Emmet in the third edition of his "Gynecology." It consists in carrying the denudation into the vaginal sulci. The second consists in passing deep sutures where Dr. Emmet passes superficial ones. In reality, Dr. Emmet's "superficial" stitches are only relatively superficial. His description of them distinctly calls for their being passed deeply enough to include the posterior wall. My excuse, therefore, for offering a contribution on such an old subject, is to attempt to make the steps of this operation clear; and if I seem tedious in detail to those who are familiar with the subject, I hope you will bear with me patiently.

The belief that the female perineum, or perineal body, gives any support to the pelvic viscera, is an erroneous one. The distance between the uterus and the perineal body is quite measurable, and the intervening tissues, which consist merely of the mucous vaginal canal and surrounding connective tissue, are by no means of such a firm character as to be able to uphold the uterus either *per se* or through the support given by the perineal body below. The only aid this body could give the supposed support would be by the uterus resting directly upon it. Dr. Emmet puts it very happily when he says "it would be as rational to assume that a man's pantaloons were supported by the legs resting on the instep or foot." The principal support of the pelvic organs is their ligamentous attachments, on the same principle as the organs contained within the abdominal and thoracic cavities are suspended. A good proof of this is the fact that we constantly see women going about their daily work who have their superficial or skin perinea, not including the fasciæ or muscles, torn even to the sphincter ani, and who never have suffered any inconvenience therefrom, and who probably never will. The cause of all the various ailments following parturition, beginning procidentias, etc., will be found inside the vagina on the posterior wall. If any one will place his fingers on the posterior vaginal wall of a woman who has never borne a child, and move them first to one side and then to the other, he will find a firm resistance to pressure in any direction. If he now introduce his finger into the vagina of a woman who has had an injury to the pelvic floor during parturition, he will fail to meet with the resistance which he met in the first case. He will find instead a *rectocele* of greater or less extent, with deep divulging sulci running up each side of the recto vaginocele, into which he can easily sink his finger without finding much resistance, and yet the external or skin perineum may be perfect.

To fully and clearly understand this change it will be necessary to consider the attachments of the pelvic viscera. The pelvic fascia descends until it reaches its attachment on a line drawn from the symphisis pubis to the spine of the ischium, where it divides into two layers, the outer or obturator, and the inner or recto-vesical fascia. This line of separation in great part also corresponds to the line of attachment of the levator ani and coccygeus muscles. The levator ani extends from this attachment downward, and passing under the vagina is inserted into the rectum at different points. It is covered on its upper surface by a reflexion of the recto-vesical fascia, which binds it closely to the vagina and sphincter vagina muscle, and on its under surface by a reflexion of the obturator fascia, which binds it closely below. The transversus perinei, when it exists at all, arises from the pubic arch, and its fibres are lost in the sphincter vagina directly under the vagina. In speaking of the use of the sphincter vagina Dr. Goodell says that "the property of this muscle is to pull down the rigid clitoris into contact with the male organ, to squeeze out the contents of the vulvo-vaginal glands, and to compress the dorsal vein as well as the bulbs of the vagina, so as to obstruct mechanically the current of blood and produce a turgescence of these erectile organs." If this be correct, we have an explanation of the loss of sexual power and desire so often seen in women who have suffered from a tear of this muscle. The recto-vesical fascia sends out reflexions from its bony attachments also over the vagina as well as over the other pelvic contents, forming the strong ligaments which

hold them in place and give firm support to the different venous plexuses; amongst others the vaginal plexus.

The advancing head of the child, under certain circumstances, crowds the soft parts in advance as it sweeps along the pelvic floor and the fasciæ and muscles just described, becoming over-distended, separate and retract, forming deep sulci laterally. Frequently the injury is sub mucous. The external soft parts or skin perineum may be torn or not; very often it remains perfectly intact. There is no question in my mind that this injury is caused with unnecessary frequency both by the injudicious use of the forceps and by our vain efforts to "support the perineum." As a rule our patients would be far better off if we were to throw our forceps away and keep our hands off the perineum, as far as any idea of giving it support is concerned. If we hold the head back the vis-a-tergo must be spent somewhere, and that somewhere is the pelvic floor, which suffers accordingly.

The mere rupture of the fasciæ and muscles would cause the woman little trouble of themselves, but the results are far-reaching. The fasciæ being the chief support of the blood vessels, we now have these large veins with no support but their own walls; consequently we soon have a chronic engorgement, with dilatation and a very sluggish return of blood from the parts. The viscera become engorged and heavy. The anterior wall, which has lost its main support—the posterior wall—begins to roll down and out, forming a cysto-vaginocele; the posterior wall gradually pushes forward and bulges from the vaginal orifice as a recto-vaginocele. The fundus uteri becomes or remains enlarged and falls backward from its weight and the traction of the vaginal wall. Gradually but surely the ligamentous attachments of the uterus are stretched and the whole organ slowly descends, dragging everything with it. We eventually have all the phenomena of complete procidentia if things go on unheeded. This theory of the injury in the female pelvis in parturition is by no means new. It is substantially the same view held by Emmet and expressed by Hadra, in the *American Journal of Obstetrics*, April, 1884, by Wylie, in the *N. Y. Medical Record*, March, 1885; Skeene, in *N. Y. Medical Journal*, April, 1885, and by James Price, in a paper read before the Philadelphia County Medical Society last spring.

The old operations, devised on the supposition that the injury of the perineal body was the cause of all the symptoms, included far more labial tissue than had been involved in the tear, and were entirely inefficient for restoring the pelvic floor. They caused an unnecessary barrier to coition, and frequently left the patient with a certainty of return of all her ailments, and a probability of the tear being reproduced at a subsequent labor.

The only satisfactory surgical procedure suggested as a cure of the injury is that of Dr. Emmet, for "restoration of the pelvic diaphragm." The patient is placed in the dorsal position, and the labia separated by assistants; hook a tenaculum or a ligature (which remains a permanent landmark to the end of the operation) into the crest of the rectocele and draw it upwards, without undue traction, to the meatus, and place it in the hand of an assistant. Hook another tenaculum into the labial tissue on each side directly opposite to or in the lower caruncle or remains of the hymen. If slight traction in diverging directions be made in all the tenacula at the same time three triangles are formed having the crest of the rectocele for their common apex. The base of the first is a line drawn from caruncle to caruncle, and the bases of the others a line drawn from each caruncle to a point far up the sulcus of the same side. On denuding these surfaces and bringing the three tenacula together, "the vaginal canal will be found reduced in size, the perineum will have been apparently drawn up toward the arch of the pubes, and the tissues of the previously gaping outlet will have been rolled in until the vaginal entrance is no longer larger than that of any female who has not given birth to a child at full term." The posterior wall is brought firmly up against the anterior wall and bladder, giving them them their natural and necessary support, and preventing their rolling down and out. Care must be taken not to denude too much surface in the sulci, as failure may result, the sutures cutting out from undue traction. The scissors should be used for all plastic work in the vagina. Any one becoming accustomed to their use will never go back to the knife. The bleeding is infinitely less and much time is saved by the celerity with which they can be handled.

The most essential part of the operation is the introduction of the sutures. They are passed from the apex of each sulcus toward the operator. A tenaculum is hooked into the apex of one of the sulci and drawn away toward the cervix uteri, thus preserving the line on which the sutures are to be introduced. The sutures are then all passed toward the operator to the bottom and median line of the sulcus, plenty of tissue being included; the sutures emerge at the median line of the sulcus and are reintroduced in the same spots and carried away from the operator, emerging just beyond the freshened edge of the rectocele directly opposite the original point of introduction, on the other side of the sulcus, thus taking a V-shaped course. The number of sutures is usually four or more. The other side is sutured in the same manner. When these sutures are all drawn up into place and closed, there remains a small triangular space of freshened surface in front of the rectocele, which is closed by the so-called crown stitch and one or two superficial external stitches. The crown stitch is introduced through labial tissue at the lower caruncle, the original point of introduction of one of the tenacula carried across through the crest of the rectocele and then through labial tissue at the lower caruncle on the opposite side. All the other sutures are now lost to view within the vagina. The resulting shallow line directly in the median line of the perineum is closed by one or more superficial external stitches. They are passed deep enough to include a portion of the posterior vaginal wall.

The day for plunging a great perineal needle through glutoid tissues, skin, muscles, fasciæ, nerves

and blood-vessels, is past. It is as much a relic of barbarism as searing the stump of an amputation to stop hæmorrhage, and causes much pain and suffering. The material of the suture is immaterial. Catgut can be either shotted or tied. As moisture causes the gut to swell, it should be shotted as soon as passed and fastened to the pubic hair with a pair of hæmostatic forceps. This will keep them out of the way of the operator. Dr. Emmet always uses silver wire twisted and then shotted so as to be easily found; the end is bent over and lies flat on the tissues. Silkworm gut should always be shotted. It makes an excellent suture, and forms a good splint to the tissues. Whatever is used, the stitches are equally hard to find and remove. A very easy method for either wire or gut is the use of "Aveling's wire coil." These can be made by wrapping a piece of silver several turns around a straight needle or other staff, to form a close coil about half an inch in length. This coil is slipped over the two ends of the suture and secured in its proper place by a compressed shot. In removing, snip off the shot, remove the coil, and the suture has ends as long as the coil was.

The after-treatment is very simple. If the patient would stay quietly in bed she would recover with perfect union without the doctor's attention. As a rule the patient complains of no pain, and opium and alcohol are not needed. The bowels are kept soluble from the first; and the urine is passed every four or five hours, the patient getting on her hands and knees if necessary. There is no necessity for binding the knees together, nor for keeping the woman in one position for days. The stitches may be taken out on the eighth day.

A CASE OF INTRA-LIGAMENTOUS OVARIAN CYST; GENERAL PERITONITIS; UNIVERSAL ADHESIONS; OVARIOTOMY; RECOVERY.

A Paper read before the Central Kentucky Medical Association.

BY L. S. McMURTRY, A.M., M.D.,

OF DANVILLE, KY.

FORMERLY PROFESSOR OF ANATOMY IN THE KENTUCKY SCHOOL OF MEDICINE, ETC.

In previous reports of cases of ovariotomy to this Society I have described the technique of the operation, and discussed points relating to the diagnosis and pathology of ovarian tumors. So much has been written of late upon this subject, and such brilliant results have been obtained by many operators, that an eminent authority suggests the idea that the last words are said upon the subject. While this degree of perfection may apply to a few expert operators working amid the dense population of certain European countries, the subject of ovariotomy cannot be regarded "a closed chapter" by the profession of the United States, where a large population is scattered over a vast area and the work necessarily distributed among a large number of operators. Hence I make no apology for reporting in detail the following difficult and complicated case, illustrating, as it does, so many important points in advanced abdominal surgery.

On November 18, 1886, I was called to Williamsburgh, Ky., by Dr. E. S. Moss, of that town, to see Mrs. G. W., aged 29 years, the mother of six children, the youngest being 3 years of age. The patient was confined to her bed, vomiting daily, and suffering severely from the effects of intra-abdominal prepuce. The tumor was first observed two years ago. Six weeks previous to my visit she was tapped and a large quantity of fluid drawn off. This was followed by a severe attack of general peritonitis, the temperature ranging above 105° F., during which her life was almost despaired of by her physician. Three weeks before my visit she was tapped the second time, and the fluid again rapidly accumulated. A careful physical examination confirmed the diagnosis and suggested extensive adhesions.

The operation was performed at 11 o'clock on Thursday, November 18, 1886, the following gentlemen being present: Drs. E. S. Moss, Gatliff, Watkins, Parker, Blain, and Ellison. Dr. Gatliff administered ether, and Dr. Moss kindly assisted me throughout the operation. On making the incision through the abdominal wall I found the peritoneum and cyst firmly adherent, and dividing this layer the tumor was opened. Turning the patient on her side a large portion of the contents was discharged. Introducing my hand, the tumor was found to be multilocular; the additional compartments were torn open and emptied. At this stage of the operation I was first able to appreciate the immense size of the cyst and the extent of adhesion. Only three weeks having elapsed since the last tapping, and the fluid not having fully refilled the sac at the time I saw the patient, I had failed to realize the immense size of the sac. I now discovered that the tumor extended from Douglas's cul-de-sac to the diaphragm, and that the adhesions were absolutely universal.

Being unable to evert the sac, I sought for some unattached point through which I might gain entrance to the peritoneal surface and remove the cyst by enucleation. In this I failed, for the preceding peritonitis had firmly fused the peritoneum and cyst wall, leaving no unattached point. To determine this point thoroughly I enlarged the incision from three to about five inches. Finding it impossible to gain an entrance by an unattached point, I began the dissection of the cyst with scalpel and forceps at the edge of the incision. I succeeded in getting "a hold" in this way, and proceeded cautiously, but as rapidly as I could, in the work of enucleation. I stripped the cyst from the pelvis, the bladder, and the whole surface of the womb, from the ascending, transverse and descending colon. I then stripped the small intestine and omentum from the cyst. The latter was extensively and firmly adherent, and required a number of ligatures. I was careful to avoid injury to the ureters on each side, an accident not unknown in such cases, and, of course, one of the utmost gravity. The lower portion of the cyst I found included between the folds of the broad ligament, and had to be carefully enucleated. The tumor sprang from the right side. When all the adhesions were

separated the tumor came away without a pedicle. The left ovary was found to be normal, and hence was not removed.

The toilette of the peritoneum was tedious and exacting; many bleeding points had been secured with forceps and many were ligatured. After securing all bleeding points, the abdomen was washed out with pure warm water, and I began the introduction of the parietal sutures. At this stage of the operation the patient's pulse became very rapid and feeble, and, assisted by the gentlemen already named, I placed her in bed, injected brandy beneath the skin in several places, and surrounded her with bottles of hot water. Through the lower angle of the wound I then passed a Keith's glass drainage-tube, and tied the stitches closing the incision. The surface of the abdomen being thoroughly cleansed and dried, the wound was dressed with antiseptic gauze, and a bandage applied. The drainage-tube was secured in place in the usual way, and its external opening protected with sponge and rubber sheeting. The entire operation occupied fifty-eight minutes.

The patient occupied a room to which she had been removed from her home in the country, and which had been carefully cleansed, dried and prepared for the purpose. The bed, mattrass and clothing were new, and everything used was scrupulously clean. I will not describe the details of preparation of sponges, instruments and dressings, as it would be a mere repetition of previous reports made by me to this Society. I will only say that I continue to use a solution of carbolic acid, strength of 1 to 40, for the instruments and sponges, and for sutures and ligatures the best silk; and that I spare no pains in my endeavor to secure perfect cleanliness of operator, assistants, and everything coming in contact with the patient. I believe that the faithful application of the *principles* of the Listerian system is the only sure method of attaining good results after laparotomy. As to whether asepsis is attained by carbolic acid, corrosive sublimate, iodoform, hot water, or other agents, is unimportant; the principles of Listerism are essential, though the manner of their application may vary with the fancy of various operators.

The attending physician in this case was Dr. E. S. Moss, of Williamsburgh, an accomplished young practitioner, formerly an *interne* in the Louisville City Hospital. He assumed the management of the case the second day after the operation, and conducted the after-treatment. We were in daily communication by letter and telegraph. From his notes kindly sent me, I condense the following history of the progress of the case after the operation:

The shock of the operation was severe, and reaction came about rather slowly. During the first three days all went smoothly, the temperature and pulse ranging about 100. The catheter was required to relieve the bladder. On the third day, the discharge from the drainage-tube having about ceased, the tube was removed and the edges of the wound brought firmly together. On this day, also, there being some distension, an enema of warm water was administered, which brought away fæces and gas.

On the fifth day the pulse was over 120, and the temperature reached 104° F., with general symptoms corresponding. Being apprised of the situation, I telegraphed Dr. Moss to open the wound, wash out the peritoneal cavity, and retain the drainage-tube in place, which was promptly done. I also suggested the administration of a brisk cathartic, and Dr. Moss gave a dose of calomel and jalap, which acted freely and promptly. Our efforts were rewarded by the temperature falling below 100° F., with corresponding improvement in all the symptoms. The patient continued to progress satisfactorily for a number of days, and the tube was again removed.

On December 10, the twenty-second day after the operation, the temperature again ascended, reaching 104° F., with rapid pulse and very alarming symptoms. Dr. Moss again opened the lower angle of the wound, introduced a rubber drainage-tube, and washed out the peritoneal cavity. The improvement was prompt, but the discharge persisted until December 19, when, having altogether ceased, the tube was removed and the wound allowed to close. On December 26 the patient sat up, and she improved rapidly from that time on. The following letter from Dr. Moss, dated February 1, 1887, announces her prompt recovery:

Dear Doctor:—Enclosed I send you notes of Mrs. W.'s case from the day you left, and hope you will place them in such form as you think best. I ceased to visit her regularly on January 9, as she was then going about the house. She has completely recovered and has returned to her home, six miles in the country. Her husband informs me that she has reached her usual standard of strength and flesh, and is daily attending to her household duties. Very respectfully, E. S. Moss.

MY FIRST INTUBATION OF THE LARYNX; RECOVERY.

Read before the Denver Medical Association, February 8, 1887.

BY CHARLES DENISON, M.D.,

OF DENVER, COL.

For several months I have been on the outlook for an opportunity to use my set of O'Dwyer's intubation tubes. The first opportunity, that of diphtheritic laryngitis at the Orphans' Home, was lost through the negligence to call me in time. The little patient's heart was ceasing to beat as I reached the Orphans' Home.

On February 1, at 11 A.M., I was called in haste to see a 6 year old boy at 1016 Thirteenth St., the adopted son of J. H. T. He was a rosy-cheeked fellow, apparently in the best of health except for the dyspnœa, etc., which characterized his condition at that time. His respirations were labored, decidedly *croupy*, his face suffused, and there was aphonia. His temperature, in the groin, was normal, pulse 120, and respirations 35 per minute. On examining the throat a patch of false membrane was detected to the right of the epiglottis and just below the tonsil. Here was a case of true croup, or pseudo-membranous laryngitis, that dreaded condition which, if your experience has tallied with my own, you have almost always seen end in suffocation and death.

As to the cause of this attack, it should be re-

marked that two weeks previously the boy had broken out with measles, which had run its course so easily that no physician had been called. As to a causative effect, due to this fever, it is interesting to note that of eighty-seven cases of diphtheritic laryngitis reported in the autopsy records of the New York Foundling Asylum twenty-two, or one-fourth of the number, had followed immediately after measles.

For treatment this child already, during the previous night, had had syr. of ipecac and some relaxing cough mixture, like hives syrup, which had produced emesis, and thus relieved several hard attacks of dyspnœa. I prescribed wine of ipecac, a teaspoonful every ten minutes during the bad spells, the throat and chest to be rubbed with a relaxing embrocation, and covered with a poultice, which was held in place with a snugly fitting cotton jacket. I also ordered the following:

℞. Sodii benzoati..... ℥ss.
Acidi carbolici cryst..... ..... gr. v.
Listerine .....
Glycerin. .....
Aquæ ..... ää ℥i.
m℥.

Sig. Use on swab every four hours and give half a teaspoonful between times.

The attendants were informed of my movements, so that I could be found in case urgent symptoms should supervene.

At 2 P.M. the treatment seemed to have done very well. The child had vomited once or twice, the dyspnœa was not so distressing, though the respirations were 38 to 40 a minute. The use of the swab had wholly removed the false membrane from above the larynx, a fact which made me hopeful the remainder might be dislodged.

At 4 P.M. the dyspnœa was increasing; respiration 44, pulse 120 or over, and temperature normal.

After 7 P.M. I remained with the patient, expecting to have to operate at any time. Some temporary relief was afforded by the inhalation of steam from slacking lime, but the symptoms from hour to hour were getting worse.

By 10 P.M. I was impressed with the danger of longer delay. Temperature rising, pulse 130 to 140, and respirations 50 per minute. Respirations superficial, labored, and accompanied with retraction of the abdomen; lips turning purple and face suffused, and with skin of that fatal leaden hue. The eyelids would remain partly open as the child temporarily slept. Expectoration and cough had ceased for some time, and the breathing was loud and whistling. I am convinced that there would have been no further expectoration to relieve the then present suffocation. It was very soon after 10 o'clock when I had the boy held in the sitting posture on the knees of A. M. Mortimore, and while the head was steadied by Miss Launey, one of our medical students, I introduced the gag (which comes with the tube to hold the jaws apart) and, having already prepared the proper-sized tube for a 6 year old child, quickly, and as gently as possible, considering the struggling of the patient, introduced it so that the head of the tube was down in place below the rim of the epiglottis. This introduction was accomplished with the right hand, while the epiglottis was hooked up by the index finger of the left, according to the usual directions, and was successful at the first attempt, though I had not the advantage, as is recommended, of a previous trial on the cadaver or a healthy person.

I believe the plastic exudation was sufficiently detached in the introduction to occlude the lower end of the tube, for the tube was at once thrown out, together with about half a teaspoonful of false membrane and tenacious fibrin; one portion of the expelled membrane being as large as a silver five cent piece. The relief, however, was instantaneous and remarkable. The boy began to breathe freely at once; his eye brightened; the leaden color left his face to be displaced by the natural hue, and within ten minutes he drank two cups of milk, when for six or eight hours before he had taken only a swallow of liquid at a time.

I expected that the membrane would re-form, and that I would be called within three to five hours, as others have reported they had been, to reintroduce the tube. But in this expectation I was happily disappointed, for I not only enjoyed a good night's rest myself, but so did my little patient. I found him bright and smiling in the morning; respiration somewhat croupy, cough loose, aphonia continued, pulse 92, respirations 34, and temperature 99.5° F. The previous day's plan of medication was in the main continued.

About 3 P.M. I was summoned in haste, but a severe attack of dyspnœa had been relieved, when I arrived, by expectoration. Pulse then 112, respiration 36, and temperature 101.5°. After that there was continued improvement, and to-day the boy is hearty and well, except for a partial aphonia which is slowly disappearing.

Of course, taking this single case as the basis of my conclusion, and notwithstanding the unusual though favorable termination of the first attempt, I feel like ascribing to Dr. Joseph O'Dwyer, the inventor of these tubes, praise equal to that given to any of the many illustrious men who have contributed new means of saving life during the past fifty years.

Dr. W. P. Northrup, before the New York Academy of Medicine, lately summed up the advantages and disadvantages due to intubation as follows:

"It relieves dyspnœa due to laryngeal stenosis.

"There is no objection on the part of the parents and friends.

"The operation is comparatively simple, and free from danger and free from shock.

"No anæsthetic is needed, and no trained assistants.

"No fresh wound is added. The subsequent care of the case requires no trained attendant. The inspired air enters the lungs moist and warm.

"It does not preclude tracheotomy, and may be found useful as a guide upon which to cut.

"Intubation has one conspicuous fault, attested by all: it embarrasses and sometimes interferes with the swallowing of fluids."

How much the previous treatment, the steam inhalations, etc., had softened the membrane and thus prepared the way for its expulsion, we cannot, of

course, state positively. I am inclined to give this treatment some credit in this regard.

As to the choice between intubation and tracheotomy I am inclined to join the adherents of the former, though I was equally successful in my first case of tracheotomy, and that was on a 6 months old baby for œdema glottidis, performed in haste, at night, with only a piece of a flexible catheter for a tube, which after a little had to be discarded. Then I had to cut another ring of the trachea, and the child made a good recovery.

ANTISEPTIC TAMPONNEMENT OF THE VAGINA IN PELVIC INFLAMMATIONS.

Remarks made before the Chicago Gynæcological Society, January 21, 1887,

BY JAMES H. ETHERIDGE, M.D.,

GYNECOLOGIST TO THE CENTRAL FREE DISPENSARY, AND THE PRESBYTERIAN HOSPITAL, CHICAGO.

What I have to present refers to tamponnement of the vagina and supporting the uterus in cases of pelvic trouble, notably of inflammation and enlargement of the uterus, and as the work has grown upon me, other complications in the way of pelvic trouble have also been treated with a result that has rather surprised me. For it, I claim nothing original.

A year ago last fall I commenced the treatment of a case of general metritis and prolapsus of both ovaries with enlargement, which had brought the woman to a very low state. She had had all sorts of operations performed and advised,—repair of the neck of the perineum for laceration,—and had been recommended to have the ovaries removed. Upon examination I found the uterus immovable. I placed the woman in the genu-pectoral position and tamponned the vagina with absorbent cotton, saturated with boro-glycerine. The vagina was douched before the tampon was reapplied, and of course everything was removed during menstruation. This was kept up for three months and she began to have less neuralgia, which had made her life miserable. I kept up the treatment three or four months longer, when there was complete mobility of the uterus, and she went out of doors and to church. The neuralgia subsided, the tenderness of the uterus and the ovaries entirely disappeared, and her condition was so much improved that it seemed to me that this was an efficient means of treating pelvic trouble.

In the midst of this work I found that Dr. Engelmann, of St. Louis, was utilizing the same idea. He was using medicated applications, such as iodine, carbolic acid, sulphate of zinc, tannin, iodoform, etc., and he made this subject the text of annual address to the Gynæcological Society of St. Louis. I think the gist of his paper was incorporated in the report I made to the State Medical Society last summer at Bloomington. Since then, in all sorts of cases of uterine inflammation, I have been making applications of the cotton tampon, resulting in considerable dissatisfaction with the material employed, and I have commenced the use of something else. It is a preparation of wool that is called "antiseptic wool." This wool is finely carded, free from all oil and foreign substances. A piece is cut off, of such a length as will fit nicely into the vagina, and then with the patient in the genu-pectoral position, with the perineum retracted, this is stuffed into the vagina and left there. The upper end of this tampon can be soaked in any antiseptic solution, as boro-glyceride or listerine, and with a piece of string attached to the lower end of it, the patient can remove it and douche the vagina, in readiness for the next tampon, and in this way tampon after tampon can be introduced and the uterus held up to the highest possible level, and advantage taken of the natural drainage from the uterus of the superabundant amount of blood.

The inflammations of the uterus we are usually called upon to treat are not active, but chronic, and if we hold the uterus up so that it can drain itself properly through the veins, the nutritive changes which take place will be facilitated to the greatest extent. A small Sims' speculum can easily be applied without trouble to the patient, and this wool can be pushed into the vagina so that when the pa- gets up she has a soft elastic cushion for the uterus to rest upon. In this way the greatest comfort is at once experienced. I have treated between twenty and thirty cases in this way. One case was a woman with a severe laceration of the neck of the uterus; the probe went into the cavity about 4½ inches. Local treatment had been freely employed in this case. She had pain in the legs and hips and profuse menstruation, and was a total wreck when I saw her. I put her in position and applied the tampon. I found after using four or five of them the pains had nearly all disappeared. I found also that the raw edges of the torn cervix were taking on a new mucous membrane, and I had the gratification of finding, after six months, that this uterus had been reduced to its natural size. It was with difficulty the laceration could be recognized through the speculum.

I have recently been called to see a woman who has inflammation of the ovary upon the right side. I found her in bed, where she had been five months continuously. Upon moving the uterus, I found there was a great deal of tenderness throughout the pelvic tissues and around the right ovary, the slightest touch producing the greatest suffering. The woman was put in the genu-pectoral position and the vagina plugged with this wool. She got out of bed the next day, and the next night went down to dinner. Now she is going all over Chicago. Before that she had been treated nine months by means of local applications, tonics, laxatives, and everything of that kind.

The result of the support of the uterus and holding the ovary up has been almost marvelous. I make these statements concerning this method of treatment for the purpose of calling attention to it, as I am still studying the subject. These tampons are removed after four or five days without the slightest odor upon them.

When the uterus is enlarged it becomes heavy, sinks, and presses the veins which carry the blood out of the uterus, and we have strangulation. By raising the uterus up, the blood flows freely and the

nutritive changes tend always to health. One outgrowth of the use of this tampon may be that many cases of laceration of the cervix, now operated upon, may escape operation. I have been surprised to see how very nicely patients get along, even though they have extensive lacerations, under this treatment.

HOSPITAL REPORTS.

MERCY HOSPITAL, CHICAGO.

CASE OF BONE GRAFTING IN THE LOWER JAW.

SERVICE OF JOHN S. MARSHALL, M.D.,
DENTAL AND ORAL SURGEON.

(REPORTED BY A. C. BROELL, M.D., INTERNE.)

Miss S., aged 42 years, presented herself for operation on January 26, at the Mercy Hospital. Her previous history is about as follows: Nine years ago she was suffering with a disease of the lower jaw, which was diagnosticated osteo sarcoma, by a homœopathic physician, who afterwards performed an exsection for the removal of the disease. The piece exsected extended from the first bicuspid tooth backwards to, and included one-half an inch of, the ramus. This physician also made an attempt to bring the fragments of the jaw into apposition, so that bony union might occur; no such union, however, resulted, but the jaw was so displaced that the median line of the chin was situated about one-half an inch to the right of the median line of the face.

Later on the patient began to suffer with neuralgic pains about the left temporo-maxillary articulation, and in the right arm. To relieve this pain, which was thought to be dependent upon displacement of the jaw, an operation was performed by Dr. Marshall some time ago, by means of which the cicatricial tissue was removed through the mouth, and reposition of the jaw was accomplished. The fragments were held in position by a gold rod screwed into the ramus, and attached to a gold cap applied to the first bicuspid tooth, and retained by oxyphosphate cement.

The patient this day (January 26) presented herself for the second operation, by means of which the gap now existing between the fragments, one inch and a half in extent, it was hoped, might be replaced with new tissue reproduced by bone-grafts. Having been previously prepared for operation, she was at once etherized. An incision was made about four inches in length in the line of the old scar, down to the mucous membrane lining the oral cavity. Both ends of the fragments were laid bare, and well scraped. The hæmorrhage which followed, though slight, was persistent, but was finally checked with a hot solution of bichloride of mercury (1:1000 of water.)

At the same time, having etherized a half grown rabbit, both its femurs were laid bare, and with bone cutting forceps twelve small pieces of bone, ranging in size from about two to six lines in length, two to three lines in width, and one line in thickness, having the periosteum attached, were removed from the epiphyseal extremities. These pieces were placed in a solution of the bichloride of mercury (1:1000), which was kept at a temperature of 99° to 100° F., where they remained from five to ten minutes. After all oozing had stopped these pieces were transferred from the solution to the wound, being placed in two rows in such a way that the inner row had the periosteum towards the mucous membrane and the outer one had it towards the cutaneous surface, the ends of the rows being in contact with the denuded ends of the jaw-bone, and the cancellated structure of the pieces being in contact.

The incision was now closed with eight sutures of carbolized silk, with a few twisted strands of silk left in the lower end of the wound for drainage. The wound was dressed with iodoform and antiseptic gauze covered with oiled paper, the whole dressing being held in place by a bandage. Throughout the operation antiseptic precautions were scrupulously carried out.

The patient left the hospital on the following day. At home she improved rapidly, the wound healing by first intention throughout four-fifths of its extent; in the other fifth, near the drainage, the stitches cut through, retarding the healing somewhat. The remaining stitches and the silk left for drainage were removed on the sixth day. The entire wound healed without the formation of pus.

As far as can be ascertained at present, there are fair prospects that the operation will prove successful.

MEDICAL PROGRESS.

INDICATIONS FOR THE USE OF NITRO-GLYCERINE.—DR. TRUSSEWITSCH, in an instructive paper on the use of nitro-glycerine published in the *St. Petersburger Medicinische Wochenschrift*, points out that the value of this drug in various affections—angina pectoris, migraine, and neuralgia (which he describes as angioneuroses), as also in sea-sickness, some forms of anæmia, faintness, palpitation, and other diseases—depends upon the existence of an irregular distribution of blood, which condition may be inferred from a certain degree of pallor of the skin, especially of the face, often co-existent with a weak pulse and a small rigid radial artery, which frequently is situated at some depth. When, on the other hand, headache and neuralgia occur in patients with chronic congestion of the subcutaneous veins of the face, nitro-glycerine is to be avoided; and similarly it is of no use in asthma, when the face is reddened in consequence of emphysema. If, however, a pale face exists with angina pectoris, migraine, giddiness, shock, toothache, or sea-sickness, the best results may be looked for by giving nitro-glycerine. The regulating effect of the drug exercises an influence over the congestion of internal organs similar to that brought about by blood-letting; and in these congestions, whether of lung, brain, or kidney, when they are of a temporary character, the pulse is generally found to be slow and of low tension—a fact which, as the author remarks, is sufficiently well-known in reference to the fever-free periods of acute hyperæmia of the lung and kidney. Dr. Trussewitsch lays down,

as a rule, that the condition of the pulse is the best indication for the employment of nitro-glycerine, and the most trustworthy guide as to the dose with which to commence the treatment. The smaller the radial artery is, the more rapidly it dilates under the action of the drug, and the less the secondary effects proceed; on the other hand, the fuller the pulse with a distended radial artery, the less it is affected; and finally, the softer the artery, with a weak pulse, the greater the secondary, and the less the general, effects. Single-drop doses of the 1 per cent. solution are sufficient in cases of small pulse, but with a full pulse it will be found that the full effects cannot be produced with less than 2-drop doses. When there is a soft artery with a weak pulse, subnormal doses only should be given—a quarter to half a drop. After the trial dose is given, the patient's sensations of pulsation and pain in the head, as well as the distension of the radial artery under the finger of the physician, will be the guides for increasing the dose. The author finds that the best modes of administering nitro-glycerine are the simple dropping of the solution on the tongue, and by means of tablets; much less satisfactory results were obtained when given mixed with water.—*Lancet*, Feb. 19, 1887.

IODOFORM INJECTIONS IN COLD ABSCESSES.—Within a few years a new method of treatment of cold abscesses has been largely adopted, which is simple, easy of performance, and apparently devoid of risk to the patient. We refer to the use of iodoform injections. It consists simply in the evacuation of the abscess by means of an aspirator, the largest-sized needle being used, and in the subsequent injection of a solution of iodoform in ether. A 4 or 5 per cent. solution is the one more commonly used for abscesses of large or moderate size, but occasionally the strength is increased to 10 per cent. when the abscess is of very small dimensions. The quantity of solution to be injected varies according to the circumstances of the case, though, in view of the danger of exciting toxic symptoms, it is generally recommended that not more than a drachm of iodoform should be used. The ether holding the iodoform in solution finds its way into every pocket and sinuosity of the abscess cavity, and there deposits a film of iodoform. Some little attention is necessary after the injection has been made, as the ether is volatilized by the heat of the body, and may cause an unpleasant degree of distention of the abscess cavity. If this occur it may be necessary to introduce the needle of a hypodermatic syringe in order to give exit to the gas. Ordinarily, however, the patients suffer little inconvenience, and are able to go about as usual after the operation. The experience of those who have employed this mode of treatment has been that one injection is often sufficient to effect a definite cure of the abscess, provided, of course, that it is not directly connected with a centre of disease in a bone or joint which is constantly secreting pus. Sometimes, however, it is necessary to repeat the operation two or more times. The chief inconvenience of this method is the pain which it causes. This is usually pretty severe, and is sometimes so great that the patients prefer to renounce all treatment than to submit to a second trial of the injections. Attempts have been made to find some less irritating substance as a substitute for the ether, but they have not hitherto been very successful.

It is not in the treatment of cold abscesses alone that the iodoform injections have been employed, but they have been used with benefit also in tubercular bone and joint affections. — *Medical Record*, March 12, 1887.

PAPAYOTIN IN FISSURES OF THE TONGUE.—PROFESSOR SCHWIMMER reports excellent results from the use of papayotin in fissures of the tongue, after chromic acid, iodoform and nitrate of silver had failed. The papayotin was administered in the following form:

℞. Papayotin..... 1 to 2 parts.
Distilled water.
Glycerine.....āā 10 "

This solution is to be applied with a camel's-hair brush, from two to six times a day, the tongue having been previously well dried. There is no maceration, as would be supposed, but the mixture stops the pain and seems to cause a renewal of the epithelium. Schwimmer reports twenty-five cases, some of several years' duration; and complete cure was affected in all except one, which was syphilitic, though specific treatment gave us no good result. But in this case papayotin ameliorated the condition of the tongue.—*Wiener med. Wochenschrift.*

ANTISEPTIC COLLODION.—The *Journal de Médecine* of December 26 contains an account of a new kind of "collodion," which is antiseptic and promotes cicatrization. It does not cause inflammation, and may be substituted for collodion made from gun cotton, in the treatment of wounds and bruises. Like traumaticine, it is efficacious in relieving neuralgic pains, and acute or chronic rheumatism. The affected parts should be sponged with it every twenty-four hours, and in serious cases every six hours. If strips of linen or silk be soaked in this collodion, an excellent sticking plaster is obtained, which quite equals English court-plaster. The following is the formula: Mastic in globules, 3 grammes; balsam of Peru, 1 gramme; narcotine, 1 gramme. Each ingredient should be ground separately, and 5 grammes of chloroform added thereto.

TREATMENT OF SCIATICA.—DR. METCALF, of New York, says that no prescription for sciatica has ever equalled in efficacy the following: ℞. Tinct. aconit. rad., tinct. colchic. sem., tinct. belladonna, āā 3 j. ♏. Sig.: Dose, six drops every six hours. He also uses triturate tablets, each containing three drops of the following: Tincture of aconite root, tincture of seeds of colchicum, tincture of belladonna, tincture of actea racemosa—equal parts by volume. Dose, one every four or eight hours.

THE
Journal of the American Medical Association.
PUBLISHED WEEKLY.

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

SUBSCRIPTION PRICE, INCLUDING POSTAGE.

PER ANNUM, IN ADVANCE.....$5.00
SINGLE COPIES.....10 CENTS.

Subscriptions may begin at any time. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible, remittances may be made at the risk of the publishers, by forwarding in REGISTERED letters.

Address
JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No. 65 RANDOLPH STREET,
CHICAGO, ILLINOIS.

SATURDAY, MARCH 26, 1887.

THE PATHOLOGY AND TREATMENT OF TRANSVERSE FRACTURE OF THE PATELLA.

While advance in some quarters has been made of late in the treatment of transverse fractures of the patella, there has been but very little study of the pathology of these fractures, and consequently there is considerable diversity as to treatment; the greater number of surgeons, holding the current views as to the cause of non-osseous union, adhere to the older methods of treatment. In the *Annals of Surgery*, of March, 1887, DR. WILLIAM MACEWEN, the well-known surgeon of Glasgow, contributes a valuable paper on "The Pathology of Transverse Fractures of the Patella and the Olecranon, showing the chief Cause of Non-osseous Union in these Fractures and how to avoid it," which may be considered as a continuation of or sequel to a paper published by him in the *Lancet*, of November 17, 1883.

In order to study these questions Dr. MacEwen examined ten fresh patellæ from as many different subjects, the ages varying from 2 to more than 60 years. It was found that in young children "the ligamentous structures running in front of the patella were presented by a very thin film, in many places scarcely distinguishable from the cartilage. In advanced life the præ-patellar tendinous structures were attenuated especially over the centre of the patella. In the six instances ranging from 14 to 45 years of age, the aponeurotic structures ran in a distinct band over the front of the patella, continuously from the tendon of the quadriceps to the ligamentum patellæ." The antero-posterior diameter of this layer was from 1 to 3 mm. The bulk of the fibres were longitudinal, and many seemingly continuous from the tendon to the ligament, a few being oblique. The *intra vitam* examination of these structures in recently produced transverse fractures coincided with these anatomical investigations; and in applying these facts it should be remembered that the time at which this fracture is most likely to occur coincides with that in which the aponeurotic structures are most developed in front of the patella.

The three causes which have been assigned for the want of osseous union after transverse fracture of the patella are: 1. A supposed deficiency in the patellar blood supply, causing a low vitality of the part and thereby preventing an outpouring of sufficient ossific deposit to unite the fragments together. 2. The separation of the fragments, by the retraction of the quadriceps extensor carrying the proximal portion of the patella upwards and away from the lower fragment. 3. The distension of the joint by blood and serum, thus preventing approximation of the fragments. As regards the deficient blood-supply, the facts are entirely against such assumption, as shown by injected specimens of the vessels supplying the patella, from which it may be seen that the blood-supply is abundant; by the parenchymatous hæmorrhage from the cancellous tissue in transverse fracture of the bone; and by the fact that osseous union is constantly obtained in longitudinal fractures, and that ossific deposition is so abundant in some diseased states of the bone. Nor is it likely that the pressure of a bandage during treatment could so arrest the flow of blood into the proximal fragment that osseous union would be prevented, since it would also prevent the formation of connective tissue between the fragments, of which we know there is no lack of a firm and substantial growth, (and it would also prevent osseous union in longitudinal fractures, in which such union is the rule). As to the contractions of the quadriceps muscle, these might prevent union were no attempts made to bring the fragments together. But we know that such contractions soon subside, and the muscle remains in a state of comparative rest. The resistance is easily overcome, and with ordinary care could not be a cause of non-union. There is frequently a condition of effusion of blood and serum into the joint, but it is so rapidly absorbed that of itself it is seldom sufficient to prevent osseous union. "A small quantity of blood clot, on the floor and roof of the fractured edges, might even be of service in preventing the wandering into the joint of osteoblasts and in forming a medium in which they might congregate and unite together into osseous plates. The presence of coagulated blood between the fractured

surfaces of bones is constant throughout the body, and is not productive of non-osseous union."

Now what is the usual mechanism of transverse fractures of the patella? In the majority of cases they are due to violent muscular action, to an effort in which the retractile power of the quadriceps jerks the patella upwards, relatively to the femur, beyond the position where it usually lies. While it is held below by the patellar ligament it rests on the apex of its posterior vertical ridge, which is now the point of development of the greatest energy of the two opposing forces. The bone may in this position be regarded as a lever of the first order, and the lever being insufficient to resist the strain it gives way. When the bone snaps and retracts, the fibrous, and aponeurotic tissues over it, which are more elastic than the bone, still holding, bridge the space between the fragments, and they are neither ruptured at the same moment nor at the same level as the bone. If the contractions continue the ligaments are overstretched, lose their resilience, and finally give way, being torn into longitudinal strips, and the now inelastic shreds rupturing at variable distances are forced between the fragments. "The majority of these shreds remain attached to the upper fragment, and their extremities would lie loosely over the fractured surfaces were it not for the fact that, at the moment the transverse fracture ensues, the upper fragment, owing to the manner of insertion of the quadriceps extensor tendon, becomes tilted, so as to present the plane of its fractured surface anteriorly; and as it is drawn upwards, those shreds of præpatellar tissue are firmly pressed over its fractured edge by the flexing of the joint, and the action of the atmospheric pressure forcing the soft tissues inwards to fill up the hiatus." These shreds thus adhere mechanically to the bone, the serrations on the edge of the broken surface of the upper fragment acting as so many pins to which the aponeurotic structures become attached. The floor of the patellar bursa, too, is generally ruptured, and portions of it hang like curtains over the fractured extremities, or are fixed on them, over the aponeurotic tissue. With such tissue between the fragments bony union is of course impossible, and even fibrous union relatively modified.

In the cases of transverse fracture of the patella that have come under MacEwen's care the præpatellar tissues have been found between the fragments, and attached to them, as described; and three other surgeons have reported the same condition. It is then probable that in the majority of cases of such injury this is the true cause of non-osseous union, especially if the injury be caused by muscular violence. Those caused by direct violence, usually more or less stellar fractures, are seldom complicated by aponeurotic rupture, and more likely to be followed by fibrous or bony union without operative interference. Those fractures in which the lower fragment only is multiple from having been divided by contact with some external body met with in the fall subsequent to the production of the transverse fracture from direct violence, should not be included under this group.

Leaving out of consideration those cases in which the fracture is not complicated by aponeurotic rupture, if we admit the foregoing points as to the pathology of transverse fractures of the patella we will be able to choose our own treatment and measure beforehand what must be expected from it. We are justified in concluding that if osseous union be desired the soft tissues should be removed from between the fractured surfaces. Except in a few cases which result from external violence, fibrous union will ensue unless this be done. Some believe fibrous union as satisfactory; but while it looks well and appears satisfactory at first, the subsequent course seems far from good. Firmer union may occur in time, but it can never be predicted. Sometimes it takes place, not between bone and bone, but between the layers of intervening aponeurotic tissue; and when a strain is put upon it the attachments give way. "Osseous union is therefore desirable, and that method of treatment which can secure this end with a regularity which can be depended upon, is what ought to be aimed at." In regard to methods we will only say that MacEwen thinks that if wiring be resorted to the wire should be removed when it has served its purpose—in about six weeks—to prevent the possibility of its subsequently acting as an irritant.

THE TAMPON IN PLACENTA PRÆVIA.

At the meeting of the Obstetrical Society of Philadelphia, on February 3, DR. H. A. KELLY, in speaking of the treatment of placenta prævia, gave the following advice: "The tampon should also be given up, for unless scientifically applied it is utterly useless; it induces great danger of sepsis, and, with the best applied tampon, in the absence of the necessary counterpressure above in the uterus, in the very cases in which it is used, the dangers of concealed hæmorrhage are imminent. If the bleeding has been great bring on active labor; but don't use the tampon."

Obstetricians who are partial to the use of the tampon in proper cases will be glad to know that

Dr. Parvin defended its use in the following language: That the tampon permits concealed hæmorrhage is an old objection which has gained nothing by time; it is a sort of bug-bear that does not frighten obstetricians who have used the tampon, for where it is properly applied, the membranes being unruptured, bleeding, either internal or external, to any serious amount is impossible. Indeed, if the uterus be properly compressed through the abdominal wall, and the tampon well applied, serious hæmorrhage from placenta prævia, even after the rupture of the membranes, is impossible. That septicæmia is likely to occur in cases in which there has been placenta prævia has been generally recognized for some time; this liability to septicæmia arising, not from the position of the placenta, but from the manipulations, the consequence of such position. Now, in violent cases of hæmorrhage resulting from placenta prævia, is the tampon advisable? The most natural treatment of a hæmorrhage occurring with an undilated os is arrest of the flow by pressure, that is, by the application of the tampon. Such treatment may be available in some cases when no other can be so readily applied.

It is probably about one hundred years since the use of the tampon in placenta prævia was introduced by Wigand, *accouchement forcé* being the general practice at the time; and though we may qualify somewhat his unqualified endorsement of it—that in suitable cases and properly used no death of mother occurred—there is sufficient clinical evidence to sustain an endorsement of the tampon as the proper means to employ in certain cases, and at a certain stage of the hæmorrhage; that is, when the cervix is undilated. After thorough tamponing Pajot and Bailly have left cases, as did Wigand, to nature, without disturbing by art the further progress of the labor. Wigand's tampons "of soft linen, dipped in a thin, oatmeal gruel," with the broad end, which is to be passed first into the vagina, thickly covered with powdered gum arabic and rosin, are certainly not to be recommended now; though we agree with Dr. Parvin that "really it would be much better than the sponges which are by some used to arrest uterine hæmorrhage, a practice that cannot be too severly condemned." The success of Dr. Murphy with Barnes's dilators, which really act as a tampon, is not only a very strong argument in favor of the tampon, but also of a more general adoption of that method.

There has been considerable discussion as to how long the tampon should be allowed to remain. We have seen that Wigand left "the rest of the labor entirely to nature, which alone, sooner or later, by means of unusually rapid and powerful pains, will expel the living, healthy child, at the same time, also, the second small tampon, if such has been found necessary to introduce. The placenta was expelled spontaneously in all cases shortly after the birth of the child" (quoted by Parvin, who states that Madame Lachapelle sometimes left the delivery in women she had tamponed to nature, that Pajot and Weil taught that after tamponing women suffering with hæmorrhage from placenta prævia one ought to abandon the delivery to nature, this method giving the best result for the mothers; and that this plan was practised and advocated for many years by the late Dr. Mears, of Indianapolis). Lusk and Galabin agree that the tampon should be removed in at least four hours; Tarnier, however, would allow it to remain for twelve hours, while Depaul's limit seemed to be twelve or fifteen hours at least, and twenty-five or thirty at most. If the tampon be antiseptic and properly applied it may be deemed doubtful if injurious results will follow a retention of it for twenty-four hours.

As shown by the statistics of Müller, the tampon will excite uterine contractions in the majority of cases; and it has been objected to it that during contractions it may convert open hæmorrhage into a concealed one; but with a properly applied tampon this is practically impossible, if the accoucheur press it back when forced down by a contraction, or else secure it with an elastic bandage which will retract when the contraction-pressure is removed.

Finally, it may be said that obstetricians are agreed that, while the tampon is not a sovereign remedy, it is not to be rejected. It should be applied, says Müller, when the os is rigid and only slightly dilated if there is violent hæmorrhage, as immediate delivery is impossible. We gain time without danger, for though it may not stop the hæmorrhage it lessens it, and prepares the parts for labor.

LAW REGULATING THE BUSINESS OF PHARMACY IN THE STATE OF NEBRASKA.

In another department of this issue of THE JOURNAL will be found a copy of the Law recently enacted by the Legislature of Nebraska. We are informed that the law was originally framed by a committee of, and was approved by, the Nebraska State Pharmaceutical Association last May. The first Section of the law provides that "the Nebraska State Board of Pharmacy" shall consist of the Attorney-General, Secretary of State, Auditor, Treasurer, and Commissioner of Public Lands and Buildings. And as these several State officers are not presumed to know much about the business of practical pharmacists or apoth-

ecaries, the Board is required to select five skilful apothecaries of not less than seven years' experience, who shall assist the Board in conducting the necessary examinations of applicants for licenses, etc. This mode of constituting the "Nebraska State Board of Pharmacy" reminds us of the first law for regulating the practice of medicine in the Colony of New York in 1760, which read as follows: "No person whatsoever shall practice as physician or surgeon, in the City of New York, before he shall have been *examined* in *physic* and *surgery*, and approved of and admitted by one of His Majesty's Council, the Judges of the Supreme Court, the King's Attorney-General, and the Mayor of the City of New York for the time being, or by any three or more of them, taking to their *assistance* for *such examination*, such proper person or persons as they in their discretion shall see fit." Notwithstanding this ancient and honorable precedent, the question will recur to most minds, why not make the five "skilful retail apothecaries of seven years' practical experience" the State Board, instead of simply assistants?

The general provisions of the law appear to be judicious and practical, and if executed with fidelity, will do much to secure for the people of that young and vigorous State the services of educated and skilful apothecaries.

THE MEDICAL REGISTER is a new weekly journal of medicine and surgery, published by the Medical Register Company, 1519 Walnut Street, Philadelphia, and edited by John V. Shoemaker, A.M., M.D., and William C. Wile, M.D., both well known to the readers of medical journals in this country. The *Medical Register* contains twenty-four double column pages of reading-matter, and has reached its seventh issue, furnishing abundant proof of enterprise and editorial ability.

IMPORTANT NEW WORK.—We learn that the first volume of "The American System of Gynecology," recently announced by Messrs. Lea Brothers & Co., of Philadelphia, is well through the press, and will soon be ready for delivery. The contributors to this work embrace a large number of the eminent gynecologists in this country.

EFFECT OF MICTURITION ON PULSE-RATE.—DR. ISAAC N. HIMES, of Cleveland, writes us, in regard to examination for life insurance, that the pulse rate generally falls after micturition, if the bladder be completely emptied; the pulse often falling from 80 to 76 or 74. He thinks that retention of urine may sometimes raise the temperature above normal.

SOCIETY PROCEEDINGS.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, Thursday, February 3, 1887.

THE PRESIDENT, THOMAS M. DRYSDALE, M.D., IN THE CHAIR.

DR. J. M. BALDY read a paper on

EMMET'S NEW OPERATION FOR PROLAPSE OF THE POSTERIOR VAGINAL WALL, OR SO-CALLED LACERATION OF THE PERINEUM.

(See page 339.)

DR. M. PRICE described a plan for the *temporary securing of sutures at the moment of insertion.* The ends being left long, two perforated shot are slipped on; the first one is to be the permanent fastening and is left loose, the second is compressed to secure the suture ends together and to prevent the other from slipping off until the time for final closing, when the first is pushed down and compressed.

DR. JOSEPH PRICE described several ways of securing sutures so as to avoid imbedding the free ends of silver ones and to secure easy extraction. Over the silver wire pass the Aveling coil and shot; this will greatly facilitate its removal. He also made some critical remarks on different methods of operating for perineal restoration. The inside method of Emmet gives the best result. The use of well prepared catgut for the sulci sutures materially facilitates the operation. Set the sutures fresh from the alcohol and drop a shot over before they swell.

DR. CHAS. MEIGS WILSON stated that the difficulty of representing Emmet's operation diagramatically is due to the fact that the plane of the posterior wall of the vagina is altered by the traction upon the tenaculum holding the crest of the rectocele. The needle figured upon the blackboard by Dr. Packard was not a Baker-Brown needle, as stated by Dr. Packard, but a modified staphylorrhaphy needle, the needle arm being longer, thinner, and having a greater arc of curvature than the ordinary staphylorrhaphy needle. It was first devised by Dr. E. Wilson, to use in uniting the freshened surfaces in Emmet's operation upon the cervix. The objection to its use in colporraphy operations is that, owing to the shortness of the needle arm, the shoulder of the needle, *i. e.*, the junction of the needle arm with the handle, made such a large opening in the mucous membrane of the vagina that the stitch was liable to tear out, especially if there was much tension before union had taken place.

DR. LONGAKER spoke of the advisability of the primary operation. He believes all forceps with long blades and large heels will do damage to the vaginal outlet. He has seen transverse tears of the outlet after natural as well as instrumental labor. It has been remarked that perineal ruptures may exist without causing any symptoms, but this is no reason why tears in general should not be repaired. He believes in performing the primary operation in every case. He likes the Chinese silk for sutures. He

has examined a perineum immediately after labor and found it apparently intact, and a month later found a rectocele and cystocele, indicating a submucous tear.

Dr. Joseph Price, upon request of the President, remarked that he had seen Mr. Tait operate for a complete tear into the rectum, also for partial laceration and rectocele. He operates so rapidly that it is difficult to follow him. He makes two scissors cuts, one on each side of the laceration, splitting the tissues from the centre line laterally and forward. He removes no tissue, but throws one flap inside and the other out, and closes by interrupted buried sutures of silkworm-gut. In the complete rent, he splits the septum laterally, turning one flap into the bowel, the other into the vagina, and closes by interrupted transverse buried sutures, with two or more external sutures.

Dr. H. A. Kelly stated that this operation was not original with Mr. Tait. It had been originally devised by A. R. Simpson, of Edinburgh, and a description, with illustration, is to be found in Hart and Barbour's Manual.

Dr. Baldy, in closing the discussion, stated that the needle used by Dr. Emmet was round, slightly curved at the point, and from three-fourths to one inch in length. He uses it with a needle-holder, and, as a rule, prefers to have it threaded with a silk loop into which the wire sutures are hooked. Dr Baldy has now in his care a patient whose fourchette is perfect, but scar tissue can be felt inside of the perineum, and there is some little prolapse of the posterior wall. When she was delivered, some weeks ago, the need of an operation became apparent, as at that time the anterior wall and bladder prolapsed before the head in a mass as large as a base ball. He does not sympathize with the total condemnation of the forceps; they are needed sometimes, though frequently abused; neither does he approve of the so called support of the perineum either by towel or hand, nor the idea of holding the head back, because these methods deflect the force of the uterine contractions against the posterior vaginal wall and the pelvic floor. He has seen cases which had been operated on by the old method by eminent gynecologists, in which the result was a perfect external perineum, but in which the pelvic floor was as badly off as it had been before the operation. The floor was completely restored by the Emmet method subsequently.

Dr. Jos. Price read an extract from a private letter from Dr. Emmet to himself: "I am very glad that the woman who was operated on has fallen into your hands, so that you may be able to make a report of the exact condition after labor. I have not kept any accurate account, but I think I have heard of some twenty cases who have gone through labor without accident after the operation at the vaginal outlet had been done. On the other hand, I have not heard of a single case where the parts were torn after the operation, which is of more value, for I should be more likely to hear promptly of the failure than of the success."

Dr. Jas. V. Kelly reported a case of

PLACENTA PRÆVIA.

K. W., fifth pregnancy, had a vaginal hæmorrhage December 28, 1886. The bleeding was quite profuse, but ceased spontaneously. On examination, the os admitted with ease the index finger, which came directly in contact with the placenta. The patient was supposed to be nearing the completion of the eighth month of pregnancy. She was enjoined to rest in bed and dilute sulphuric acid was administered. Several days later the hæmorrhage recurred, and again ceased spontaneously. She kept on dribbling a little each day until January 11, 1887, when she had a violent hæmorrhage, and I determined on active interference. Her pulse was 120; she was very pale and had attacks of fainting. The os was dilated to the size of a half dollar, and dilatable. I gave her 15 drops of Squibb's fld. ext. ergot. There was no decided pain, though the patient said she felt some slight bearing down. I brought her to the edge of the bed, with her knees flexed, and found a decided thinning of the placenta toward the right sacro-iliac symphysis. It was difficult to rupture the membranes without detaching the placenta, so I made firm pressure over the fundus, which caused the head to descend, and I then ruptured the membranes against the vertex. The waters drained off, the uterus condensed, and the bleeding ceased. I then gave 20 drops more of the ergot, and slight pains were noticed shortly afterwards. I still kept my index and middle fingers in the rent I had made in the membranes and the edge of the placenta, endeavoring to prevent any bleeding by pressing the placenta against the left side of the os. The pains became stronger and the head descended and the bleeding again returned. I endeavored to accelerate the labor by encouraging the woman to bear down and by making strong pressure over the fundus, but as these measures did not produce the desired result as rapidly as I wished, and the head having passed the superior strait, I applied the forceps and delivered. There was no further hæmorrhage, and the placenta was expressed by Créde's method in fifteen minutes. The woman received a vaginal injection of warm vinegar, as well for its antiseptic as for its hæmostatic properties.

The fœtus was of fair size for the eighth month, and was nearly lifeless. Artificial respiration, mouth to mouth, revived it and it lived thirty hours. The mother was in a very exhausted condition, and was given brandy and ammonia for nearly a week. The pulse after delivery was 140. She was also given plenty of milk and broth, and not allowed to raise her head off the pillow for a week. She has since entirely recovered. No tampon was used in this case. Ether was not administered.

Dr. M. Price had recently attended four cases of placenta prævia at full term; one, a very desperate one, had been tamponed. The cervix was dilated to the size of a half-dollar. He was urged by his consultant to introduce his hand, turn and deliver, which was, much to his surprise, accomplished in ten minutes, with child and mother both saved. The four children were all saved, and the mothers also, although one of the latter died from anæmic causes

three months later. He would at once, when called to such a case at full term, or in premature ones if he considered it advisable, dilate, turn and deliver. The method adopted in these four cases is that now adopted by the best authorities. Tamponing at term he considered dangerous and involving a loss of valuable time, hazardous to both mother and child.

DR. LONGAKER thought it far better to turn the fœtus by the bipolar method before rupturing the membranes or perforating the placenta. He had lately attended a lady in her first labor at the age of 37 years. She was seized with profuse hæmorrhage while walking in the street. When called he found placenta prævia, the os was open to the size of the index finger, and large clots were in the lower segment of the uterus. He turned the child by the bipolar method, passed two fingers through the placenta, brought one leg through and left the case to nature. The child was lost, as the entire placenta was attached low down, placenta prævia centralis, and retraction of the uterus interfered with uteroplacental circulation. In a second case turning was followed by similar results in a case of placenta prævia centralis. While the two children were lost, both mothers recovered without an unfavorable symptom. In three cases respectively of lateral, marginal and partial placenta prævia, treated by rupture of membranes, and application of forceps in one of them, two children were lost. In one of these cases the fœtal heart sounds were extinct on my arrival, half an hour after a sudden and profuse hæmorrhage. All the mothers did well. The high fœtal mortality shows that we cannot place much value upon the child's life, and in view of the dangers which threaten the mother's life, would it not be best to interfere promptly when called to a case of hæmorrhage from this cause, regardless of the age of the fœtus?

DR. H. A. KELLY exhibited a

PLACENTA PRÆVIA CENTRALIS OF THE SEVENTH MONTH,

in which he had perforated the placenta to break the amnion and, after turning, delivered, saving the mother, who had suffered from profuse hæmorrhage. He described a case in which turning proved impossible in a placenta prævia lateralis, owing to the fact that the cord was so tightly wrapped around the child's neck that only a small bight was left between the head and placenta, and when the foot was brought out at the vulva the head was felt fixed at the brim as at first. The foot was returned, and a forceps delivery of the head revealed the difficulty, which was corrected, and the mother delivered of a seven months baby, which died immediately. The mother made a perfect recovery. No one rule suits all cases. The first point of importance in event of free hæmorrhage is to rupture the membranes, and this must not be a mere puncture, but as free a separation as possible along the placental margin. The hæmorrhage comes from the separation of the uterine and placental surfaces, and this is only to be prevented by freeing the placenta on one margin, so that as the contraction goes up the placenta may, as far as possible, ascend with it. Turning is only needed in the more urgent cases. Where the pains are strong and the hæmorrhage has been but moderate, let the head engage, and more children will be saved.

(For Dr. Kelly's and Dr. Parvin's remarks on the use of the tampon in placenta prævia see editorial on this subject.)

DR. PRICE'S cases were at full term. He had not taken premature cases into his account. Deliveries at five, six and seven months, the fœtus not being viable, admit different principles. Emptying the uterus as early as possible is safer for the mother.

DR. H. A. KELLY called the attention of the Society to an *external direct method of measuring the conjugata vera*, which he had found of extreme value in a large number of non-pregnant and gynecological cases which had come to him complaining of difficulties since a previous confinement.

The short vagina, or cellulitis or cicatricial contractions, often prevent the finger in the vagina from reaching the promontory. In a case he had examined in the morning, the short vagina prevented the vaginal finger reaching the promontory while the outside hand rested upon it, and on pressing deeper felt the vaginal fingers fully 3 centimetres below. This case was measured by the outside hand and determined normal. Another case had a rachitic pelvis, 8½ cm. conjugate. She had borne ten children at term through difficult labors, but without assistance.

The method is simple, avoids a vaginal examination in the virgin, is invaluable in many cases retrospectively and prognostically. The inaccuracy of the external conjugate is well known. This, of course, is of no use in the most important class of cases, the advanced pregnant, but it does often afford invaluable facts in other cases.

The method is to press deeply with the finger tips of the extended hand until the promontory of the sacrum is felt, then, by slipping the fingers up and down over this until the relations are well appreciated, let the fingers rest vertically above the angle, and at the same time mark on the palm with the finger of the other hand the position of the posterior surface of the symphysis, also vertically below. This measurement from the mark thus made to the tip of the finger is the conjugata vera thus directly measured.

DR. MONTGOMERY, in a paper entitled

TRACHEOTOMY AND INTUBATION IN DIPHTHERIA,

urged the importance of early operation. The symptom which should indicate the necessity for operation was depression of the substernal region during inspiration. This symptom indicates the inefficient entrance of air to fill the lungs, and the diaphragm becomes a fixed point depressing the soft tissues. The longer this condition continues the greater the danger of collapse of portions of lung tissue. The large mortality after tracheotomy and intubation is due to the postponement of operative interference in the majority of cases until these changes have occurred. This assertion is verified by his own experience in tracheotomy. In his first ten cases, in all but one of which the operation was done as a last resort, none recovered. In the next seven cases, in which, excepting two, it was done early, five recovered.

The two fatal cases were not considered hopeful at the time of operation. His eighteenth case died before the trachea was opened. Of the last ten, five recovered. Twenty-eight cases with ten recoveries. He has practised intubation in thirteen cases with six recoveries. All but one of these cases were seen in consultation, and some of them were in a dying condition when intubation was practised. In no case did death occur in less than twenty-four hours, and in all the relief from the dyspnœa was prompt and permanent. The youngest child was 18 months of age and died on the fifth day of convulsions. The youngest child to recover was æt. 2 years. In one case of recovery tracheotomy was performed the day following the intubation. A smaller-sized tube than suited for its age had been used; the dyspnœa recurring and the tube absent from the glottis, it was feared that it had been passed into the trachea. It was found that the tube had been coughed up and swallowed, and passed per anum two days later. Of course, in this case, little can be claimed for intubation. He prefers intubation to tracheotomy, and believes that the former will supplant the necessity of doing the latter. The advantages are: It is free from danger; it requires no cutting nor anæsthetic; the after-treatment does not require skilled attention, as the air is moistened and warmed by the natural passages before entering the trachea; there is therefore no dry mucus accumulating in the tube and not the same danger of secondary inflammatory lesions. As the tube does not fill up the calibre of the trachea, membrane is coughed up around instead of through it, and thus the danger of blocking is avoided.

ST. LOUIS MEDICAL SOCIETY.

Stated Meeting, February 12, 1887.

THE PRESIDENT, S. POLLAK, M.D., IN THE CHAIR.

FRANK R. FRY, M.D., SECRETARY.

DR. F. W. WESSLER read a paper entitled

DIPHTHERIA AND BRONCHIAL CASTS.

In October last I saw a boy, 8 years old, whom I had frequently attended for tonsilitis. In three or four days I discharged him. A few days after (Oct. 25) I was called to see his sister. I found her with a high fever, vomiting, very restless, and her throat red. I suspected diphtheria, and informed the family of the fact. They removed her from the home. I visited her from Monday to Thursday, when all the symptoms seemed to have disappeared. At the time what I intended to have been my last visit, as I had my hand on the door to go, I heard the little girl cough. The mother said she had not been coughing that way. It was a croupy cough. I promised to call again the next morning, but before that time they called for me. I found the patient almost choking. I had previously administered calomel and bicarbonate of soda, and afterwards the bichloride of mercury and tincture of iron. I now concluded that I would rely on calomel, and ordered it. I called the next morning and found the exudation had been discharged (a cast of the trachea and bronchi).

We see few specimens of bronchial casts, most of our patients die before this exudation is thrown off. Eight years ago I had a case of the kind in a man 39 years of age. He was a miner from the northern part of the State He had had measles six months prior to the time I saw him. While at the hospital he threw off the exudation, with the bifurcation of the bronchi well marked. I put it in a solution of chloral hydrate, which did not preserve it well. About the same time Dr. W. E. Glasgow presented a case. Dr. Johnson reported a case in the *Medical Review*, January 29, 1887. He calls it pseudo-membranous bronchitis. Dr. Glasgow calls it plastic bronchitis. It has been called croupous pneumonia, etc. Dr. Moore had asked whether any physician had abandoned the local treatment of diphtheria. I have. When I began the practice of medicine every physician carried a caustic-holder in his pocket, and every case of tonsillitis and sore throat was cauterized. I found that children who were not cauterized recovered equally as well or better than those who had been. That was my reason for abandoning the local treatment, and I never use anything more than a simple gargle. I have much faith in whiskey and have advocated its use for many years. I think it a disinfectant as well as a stimulant. I think more of calomel and whiskey than any other two remedies for diphtheria.

DR. G. HURT said that whether or not local applications are indicated depends on the cause of the disease, and the manner in which it invades the system. I believe that if there is any disease that may be referred to the bacillus as its cause, diphtheria is that disease. It must be an animal or vegetable growth foreign to the tissues themselves. If it is a parasitic disease, we ought to have a remedy that would be effectual locally. Whether nitrate of silver is a proper application or not is a question. Possibly calomel exercises its effect as it is administered and not afterwards. If, six years ago, I had openly and knowingly treated a case with calomel and lost it I would have been prosecuted for malpractice. Yet twenty-five or thirty years ago diphtheria was treated with calomel and bleeding, and according to Jacobi, with a mortality of 90 per cent. According to the same authority, without this treatment the recovery has been 90 per cent. I have not returned to the calomel treatment. In the few cases I have had during the present epidemic, I have used tonics and iron and hydrochloric acid. I have also used gargles, from which I think I have derived benefit.

DR. HENDRICKS said: As to whether diphtheria is primarily local or constitutional I cannot say. Generally the constitution is evidently affected by the time I see the cases. I address my treatment to the constitution regardless of the local appearance. I started out against local treatment fourteen years ago. I abandoned it because the efforts to make applications exhaust the child. The false membrane that is in sight will do no harm, will not stop the breathing. I have had no cause to regret my course. Up to 1870 I used quinine and iron. I do not use

them now. They disturb the digestive functions. I now rely on a prescription that I found in the London *Lancet* a number of years ago:

℞ Tr. ferri chlor..... fl. ℥ iv
Liq. ammon. acetat..... fl. ℥ ii
Potass. chlor..... ℥ i
Aquæ, add..... ℥ viii ℏ
Sig.—One teaspoonful every hour.

DR. H. H. MUDD: The experience of the profession in the past few years tends towards the belief that it is impossible to separate croup and diphtheria. I noticed a short time ago reports of eighty-seven cases of diphtheria in which tracheotomy had been performed, where it was laryngeal and invisible from the beginning in fifty-six cases. I believe you cannot always separate the cases of membranous croup from those of diphtheria. The paper properly dwells upon nutrition and stimulation as the important points of treatment. As to the administration of some salt of mercury and the benzoate of soda, I believe from observations during the past six months where many have been using these remedies, that there is benefit in this treatment. I see the cases only when surgical treatment is needed, and the results of tracheotomies have been better than ever before. Dr. Hodgen was the first man I ever saw make a tracheotomy. He was one of the earliest and staunchest advocates of the measure. During the first ten years that he did the operation, it was with the reluctant consent of friends and against the sentiment of many physicians, and when there was almost no hope of recovery. He had fourteen cases before he was rewarded with a single recovery. He had operated ninety-two times when he died, with fourteen recoveries. I have had seventy-four operations for diphtheria, with twenty-eight recoveries. From all cases, without making a distinction between croup and diphtheria, the work of our office, viz., Dr. John T. Hodgen and myself, together with Dr. Harvey Mudd and Dr. Harry Hodgen, there is a total of 172 cases with forty-four recoveries, a per cent. of 25⅔. Since June I have had twenty-five cases and twelve recoveries. There was no difference in the class of cases.

We should always give patients the benefit of this operation before it is too late, before the residual air becomes so much that the tidal wave is almost nothing.

I have been interested in the accounts of intubation. I obtained the instruments for it, not that I had any great faith in it, but I knew I should meet many cases where the relatives would not let me make a tracheotomy. I say to the parents in these cases, that I believe tracheotomy to be the best operation. I have tried intubations in six cases. In three of these I resorted to tracheotomy afterwards. In one case the trachea filled with a large, hard cast that extended down to the second and third bifurcations of the bronchi, and came near suffocating the child. I removed the tube and performed tracheotomy. In another case in which I resorted to tracheotomy, I at first used a tube of the required size; this was coughed up within twenty-four hours. I used a larger tube and it was coughed up. This was repeated four times, until the child was in a desperate condition. The case made a good recovery after tracheotomy. In the third case the child wore the tube four days, during which time he could not swallow without violent coughing; he was very weak, although he had been well fed *per rectum*. A profuse discharge from the trachea, and râles in the trachea and large bronchi induced me to remove it. The breathing was comparatively easy. But at the end of sixteen hours they sent for another surgeon, who thought there was nothing to be done. I thought so too, except to make the tracheotomy. This was done, and the child is getting well. In the other three cases the patients died. I do not believe that the intubation tube answers the indications as well as the tracheal tube. Its usefulness is in cases where tracheotomy may not be performed.

DR. I. N. LOVE: I concur with those who deprecate caustics when they interfere with the proper tranquility of the patient. At the Copenhagen International Medical Congress some one reported 100 cases of diphtheria treated successfully by simple cauterization of the throat—of the membrane. Such a report necessarily makes us feel that he is too general in his interpretation of symptoms. Either his ideas of diphtheria do not obtain here, or the diphtheria which obtains in his latitude is not the kind which prevails here. I think there are measures for rendering the local conditions more innocuous. Turpentine, which has been mentioned, is a good remedy. I concur with those who disclaim against quinine. It impairs digestion. The strongest points that I tried to make in my paper were in the direction of treating diphtheria with the bichloride of mercury and benzoate of soda, antiseptic and eliminative agents, coupled with stimulative agents.

DR. H. C. DALTON presented

A SPECIMEN OF ENLARGED KIDNEY,

taken from a patient, the notes of whose case are as follows:

Frank Schultz, æt. 19, single, peddler. About three weeks ago patient began to grow weak, four days later had hæmaturia, and coughed up blood at same time. The latter has continued at intervals up to present time. Bowels constipated. After entrance to hospital, respirations were slow and quiet; blood flowed from mouth frequently, origin not known. Hæmic murmurs were heard over pulmonary artery, aortic orifice, and at apex of heart. Few sibilant râles in lung. Abdomen tender. Patient had been on a prolonged spree up to three weeks ago. On autopsy, marked congestion of all the abdominal and thoracic viscera was found. The kidneys were enlarged as you see in this specimen. His death could only be accounted for by the general congestion of the above mentioned organs, following the prolonged spree.

DR. T. F. PREWITT presented a patient who suffered almost continuously, with

HEPATIC COLIC,

from August, 1885, to November, 1886. During this time he was occasionally jaundiced; the attacks became gradually more severe until he was totally un-

able to work; lost flesh, and, except when he was under the influence of opiates, his sufferings were intense. On the 9th of November, 1886, I performed cholycystotomy. Cutting down on the gall-bladder, I aspirate it first to get rid of the bulk of fluid. It leaked from the puncture of the needle. It occurred to me that it is not prudent to aspirate the gall-bladder; it has been followed by fatal results. I have done it several times to relieve distension. In this case the bladder was not much enlarged, the obstruction not being very complete. After drawing off as much of the fluid as I could, I found that the bladder was so short that I could not bring it readily to the abdominal walls, and it became a lively contest to prevent the bile from getting into the abdominal cavity. This was prevented, however, with sponges in the hands of assistants. I found difficulty in getting it to the abdominal walls to secure it. One of the deep sutures suppurated and left a fistulous opening. All the bile does escape from the fistula as is evident from the color of the evacuations. His health has improved amazingly; he has a good color, and were it not for the purulent discharge, his condition would be very comfortable.

In reply to a question by Dr. Le Grand Atwood as to the condition of the ductus comminus choledochus, Dr. Prewitt said: I examined it as well as I could, but detected no thickening or narrowing. I think there was a gall stone in it, which escaped somewhere. I had a case last summer, of enormous distention of the gall-bladder; it reached down to the umbilicus. I aspirated twice: first drew off a quart, and afterwards a pint of fluid, subsequent to which the patient passed several large gall stones. She was much relieved; if she had not been I should have performed cholycystotomy. I had still another case in an old lady where there was considerable enlargement of the gall-bladder and much suffering, though not to the same extent as in these. She also had heart disease. This case was the result of chronic obstruction, possibly of the cystic duct. In these chronic cases, the contents are generally of a mucoid nature, and not bile.

Dr. R. J. Hill said: I have seen a few cases of obstruction to the passage of the bile, where there was no icterus; none marked at least. In one case the colic was so severe that the patient would throw himself across a barrel for relief. I had read a report of a case by Dr. Matthews, in which he had used sweet oil with good effect. According to his instructions I produced free catharsis and then administered a teacupful of olive oil. On the following morning the patient reported the passage of twenty-four gall stones, with great relief to his sufferings. The dose was repeated and at the end of three days, he had passed over 125 stones of that character. Relief was complete. It is now three years since he has had any trouble. I do not understand the modus operandi of the oil.

LOCAL TREATMENT IN DIPHTHERIA.

Dr. F. J. Lutz said, that at the last meeting Dr. Moore's question as to the advisability of using local treatment in diphtheria was not much dwelt upon. When we are called, in the majority of cases, we find the fauces, uvula, etc. covered with membrane. In many cases, from the nostrils of the child there is exuding a fœtid, secretion, so that by the sense of smell we can make a diagnosis. I do not understand how any one can fail to have his attention called to the necessity of local applications, for cleanliness, if for nothing else. If the ulceration instead of being in the throat, were in the anus or vagina, or on the extremities, certainly nobody would undertake to cure it by internal application of medicine as iron or a febrifuge or calomel. I have been in the habit of applying the bichloride of mercury by means of a spray to the throat. Of course some exhaustion is produced by the child's struggles for the first few times, but it soon finds it far from disagreeable. You remove much of the secretions; a part of the membrane sometimes. Often a decided improvement in respiration follows. It is a valuable factor in reducing the temperature, much material is removed which would otherwise be absorbed. I think that by this means, the disease is checked—it does'nt extend down as far. I find that where the child is too small to make local applications, the resuits are not so good. I abhor the use of the probang; it is an outrageous proceedure. I have been in the habit of giving calomel and bicarbonate of soda; because authorities say it is valuable, also on the theory of its germicidal properties. I believe I have been more successful since I adopted this plan of treatment. I believe tracheotomy should be done so soon the patient's blood is not well oxygenated, his breathing embarrassed, and discoloration of the lips shows. I believe that many tracheotomies would be improved if we could keep the throat properly cleansed.

Dr. William Johnston said: The recent epidemic has made the treatment of diphtheria especially interesting to this community. I have never observed anything contagious about membranous croup. Diphtheria commences on the fauces, etc., with a peculiar membrane and a peculiar condition of the patient, and peculiar symptoms. There is a distinction between the diseases. Most of the modern specialists agree that diphtheria is the result of invisable organisms acting on the larynx, pharynx, etc. Burdow Sanderson and others believe this, and that we should attack them immediately with the spray. Were this theory correct, that would be good treatment. Those who believe that this membranous croup which kills in a few hours depends on bacteria, should have a spray in their satchels, and begin first thing to spray the throat, as Hunter did, for consumption, a few years ago. My experience with diphtheria is a sad one, spray or no spray; calomel or no calomel. So that when I read Morell McKenzie's report of sixty one recoveries from 100 cases of diphtheria, I sometimes think he has had cases of follicular laryngitis and called them diphtheria.

Dr. Adolph Green said, that there is not only a difference between diphtheria and membranous croup. but there is a difference between diphtheria and diphtheria. Most cases of membranbus croup commence in the larynx; they are local, and not general, like diphtheria. If you perform tracheotomy

in diphtheria, it will prove a failure because your diphtheritic process kills your patient. If you have performed tracheotomy and the case gets well, you have saved time to treat the case by that means, and have proved yourself a good physician.

DR PREWITT said: In a case in which I performed tracheotomy a year ago there was paralysis of the muscles of deglutition. The child came near starving in consequence of its inability to swallow. I resorted to the expedient of taking the tube out and putting a little bit of sponge into the larynx and then feeding the child. In the recent epidemic here, I see that 700 cases of diphtheria, with 135 deaths have been reported. I don't think any physician will believe that all those cases were diphtheria. I have seen many cases of follicular pharyngitis, but comparatively few of diphtheria.

DR. JOHNSTON said: There was a difference in the membrane in membranous croup and diphtheria. Virchow asserted this many years ago; but it has been denied.

DR. WILLIAM PORTER said: I believe that the best operation would be that of tracheotomy without tubes. Dr. Prewitt placed a sponge in the larynx; I believe that ought to be done frequently. We know that many cases die from what we call pneumonia, because, I believe foreign bodies and particles from the inflamed mucous membrane get into the lungs. In Dr. Prewitt's case this was prevented —the sponge prevented the milk, etc. from getting into the lung. Intubation, by and by, will lose the favor for which it has been received, for the reason that it is almost impossible to prevent foreign bodies and diseased substances from getting through the tube placed in the larynx, into the lungs. So that after all, the tracheotomy is the grand operation where there is laryngeal obstruction. I endorse the early operation.

Stated Meeting, February 19, 1887.

THE PRESIDENT IN THE CHAIR.

SCARLET FEVER.

DR. WILLIAM JOHNSTON said: I would like to have the views and experience of the gentlemen concerning the scarlet fever beginning to prevail in St. Louis; whether this form is not diphtheritic in its character, also whether scarlet fever has a tendency to go into the croupous or diphtheritic form. I have seen but two cases of scarlet fever this winter; both were of an inflammatory type, characterized by high temperature and bounding pulse. In one case the child had not been exposed to any case of scarlet fever that we could learn. It had been confined to the house for one month, because it had had an attack of chicken-pox. The initiatory symptoms were of a character of stupor for twenty-four hours, at the end of which time the eruption came out all over the child. About the fourth day there commenced a snuffling and discharge of mucus from the nose. About the fifth day the fever began subsiding, and desquamation began.

I prognosticated that the child would recover, but on the morning of the sixth, about 3 o'clock, he commenced with that peculiar croupy cough which you all understand. I saw the child about daylight, when there was difficulty in breathing, a constant hacking cough, and great restlessness. I advised calling another physician. We both agreed that the child could not recover. The temperature came up again and continued high from Sunday morning till Tuesday evening, when he died of strangulation. Antipyrin, small doses (⅛ gr.) of calomel with soda were used. Bowels were moved, bath administered, Fleming's preparation of aconite was given. The difficulty in the trachea was not relieved; tracheotomy was suggested but not performed, and the child died with membranous croup.

DR. I. N. LOVE said, that he had been partial to the local treatment; it is important, not only for relieving the discomforts of patients, not only for the soothing effect on the irritated surfaces, not only for the specific effect, but for the purpose of local disinfection, of rendering the membranous deposit innocuous, so far as possible. These local applications, I think, should be made in a manner to disturb the patient as little as possible, because, one of the important points is to husband the patient's strength, in the way of nutrition, of stimulation, and at the same time, arrange your local applications so as to secure as little disturbance as possible. The spray is preferable to gargling; it will reach further and in an easier manner. One point has not been touched upon; that is, the tendency of the deposit to increase by continuity of tissue. It is a point to keep the nasal passages clear, and in order to secure this, I have the nurse or patient use melted vaseline, carbolized (5 grains to the ounce), introduced into the nostril, either with a spoon or small dropper or syringe. Some children will snuffle it up readily. The surfaces are soothed, the accumulated secretions softened and discharged, and the passages kept open.

Regarding Dr. Johnston's disbelief in the curability of the bona fide membranous croup, I think the laryngeal trouble does not necessarily imply any more constitutional involvement, or that the disease is necessarily of a malignant form, but simply that the local deposit is in a very undesirable place, causing mechanical obstruction to breathing. We have all seen cases of membranous croup get well. I have no doubt Dr. Johnston has. I can recall five of them, in which I could not get doctors who also saw them, to say whether they were croup or diphtheria; they did'nt know. And I don't believe anybody knows. I think the health commissioner solved the problem correctly when he ordered that a case of membranous croup should be placarded as diphtheria. In the five cases mentioned they were dying, the operation was performed, suffocation was prevented and they recovered.

DR. ADOLPH GREEN said: It was a fact that all the infectious diseases are sometimes complicated with croup, small-pox, measles, etc., but they are all membranous croup. False membrane is not always deposited there. There is merely a catarrhal inflammation. For the most part, these cases of croup have nothing to do with true diphtheria, but some

times it may happen that actually there is primary affection of the pharynx.

Dr. Johnston did not mean by membranous croup, laryngitis, tonsillitis, pharyngitis, etc. He meant true membranous croup, and believes it is not curable by any means which we possess.

Dr. G. Hurt said he had been in the habit of recognizing three kinds of croup: Spasmodic croup, and a croup due to a simple inflammatory condition without membrane. That the membranous croup is most usually diphtheritic, he is willing to concede.

Dr. W. H. Ford said: A year ago a severe case of diphtheria in an adult occurred in the West End. It was attended by Dr. H. Tuholske. There were two other cases, all of which recovered. In the house across the alley from the one in which these cases occurred three other cases occurred in succession, all getting well. I afterward learned that in cleaning up after the first cases the people of that house through some of the materials from the diphtheritic room into the alley; these were afterward carried by a boy from the second house, and he had the first case of diphtheria in that house.

Dr. W. Porter said: I have tried to make a practical summary of the prevailing opinion amongst the profession as follows:

1. That the profession is not studying so much the obscure points in the nature of diphtheria, as it is the practical benefit to be derived from properly treating it.

2. That diphtheria is not an incurable disease. Those who have had the best results favor first limiting the local progress of the disease. It is not fair to say that because the cauterizing the throat has failed to cure cases, therefore local applications to the pharynx made with gentleness and tact, cannot be made so that the child will not resist. Also, those who have reported practical results favor medications that limit the progress of the poison, that render it inert. The use of the benzoate of soda has increased in favor and my experience with it corroborates the good reports concerning it. I am sure I have found good effect from using guardedly, bichloride of mercury.

3. Nutrition and stimulation should be resorted to to keep up vitality.

4. The air passages should be kept as free as possible, and, if necessary, an artificial opening should be made. I don't believe that intubation is likely to afford the great relief that its inventor now maintains. When tracheotomy is performed, the child gets air into the lungs pure and fresh; when intubation is performed, the child continues to breathe through the diseased channel; is liable to receive particles of matter into the lung, to set up pneumonia, from which it dies. Tracheotomy is not such a terrible operation; where it is done in cases not associated with this disease, it is not a dangerous operation. I don't believe in tracheotomy when the membrane has descended into the trachea, or when the child is beyond recovery. But where you find that the lungs are resonant, that there is nothing but mucous râles in the bronchial tubes, where the lower air passages are comparatively free, and the upper ones occluded. we fail in our duty if we do not practice tracheotomy.

Dr. C. H. Hughes said, that our fathers built more wisely than they knew, when, failing to draw the later scientific distinctions between diphtheria and croup, they treated them as the same thing, and used calomel so effectually. Before Bretonneau drew the line of demarcation between them, we heard very little of the fatality of diphtheria; and so far as we can discern from the literature, diphtheria is not a disease which has come of late. Now the same treatment is given since we have returned to the practical practice of our fathers, and suspended the scientific difference between tweedledum and tweedledee. A point which I have not heard discussed, is the absolute necessity in diphtheria, as well as in croup and every other affection which is taxing on the vital powers of the organism, of sustaining the vital centres by adequate and enforced sleep as well as nutrition. If there is anything in which it appears to me that practitioners are derelict in the management of diphtheritic cases, it is in not enforcing in the night adequate sleep, and that by chloral.

Dr. Johnston said, he was one of those who gave calomel freely, but his patients died.

Dr. R. Funkhouser had been accustomed to treating many cases of diseases of the throat, but during the later part of last year, and early part of this year, he had not had a case of diphtheria. He considers that a great many cases reported are not diphtheria.

In reply to a question by Dr. Rumbold, Dr. Funkhouser said: Some cases I have had have been in the neighborhood of cases reported as diphtheria; their parents were much exercised and sent to me, expecting me to pronounce them diphtheria. It may be that some of my cases might have been called diphtheria, but I have not seen a case of diphtheria this year or the last of last year.

Dr. Love said, that this point was touched upon in his paper; it was suggested, that some observers might be more liberal than others in their interpretation of the symptoms. But we do not want to go too far in either direction. The death rate is enough to indicate that diphtheria has been abroad in the city. We all know a classical case of diphtheria, but we may have mild cases, severe types and malignant types. During the time that diphtheria prevails, there is always an epidemic of sore throat. The symptoms of a case of diphtheria may vary to such a degree as to make the diagnosis doubtful.

Dr. Rumbold said: In reference to the diagnosis (and prognosis) of cases, I have noticed that when the membrane is located on the tonsil, or in the anterior portion of the throat, the case was generally a mild one; if a little further back it was increased in gravity; if in the posterior portion of the fauces, then it was a grave case.

CHICAGO MEDICAL SOCIETY.

Stated Meeting, March 7, 1887.

THE PRESIDENT, EDMUND J. DOERING, M.D., IN THE CHAIR.

DR. A. E. HOADLEY read a paper on

DEEP TUBING OF THE LARYNX AS A SUBSTITUTE FOR INTUBATION, WITH A REPORT OF NINE CASES.

(See page 337.)

DR. F. E. WAXHAM opened the discussion and said: In this connection I take occasion to present a bronchocele which produced death by pressure on the trachea. The history of this case, briefly, is this: The patient was a girl 14 years old; she had been troubled with a goitre for about a year, which increased rapidly in size and the people observed that it was at times larger than at others, more particularly after the child had taken cold; but still the goitre gave no inconvenience until three days before death, when it is stated the child had taken a slight cold and the tumor became larger. With increase in the size of the tumor and the consequent pressure upon the gland by the sterno-thyroid muscles, great dyspnœa resulted. The patient was attended by Dr. J. G. Berry, who recognized the true condition, and on the third day I was called to perform intubation. The child was now in the most desperate condition; indeed, it was moribund, the pulse was feeble, rapid and thready, hypotastic congestion had already occurred in the lungs, and the child was semi-comatose.

While in this condition the largest size intubation tube was introduced into the trachea, but it failed to give relief simply because the tube was not of sufficient length. It would not reach through the stricture, and from the pressure of the gland, as rapidly as it was pressed down in position so rapidly would it be pressed up again. The child was so near dead that tracheotomy was thought to be useless. To meet such emergencies as this I have had a much longer tube constructed, one that will pass entirely through such a stricture and consequently give perfect relief. The object in performing intubation in cases of bronchocele would be to give immediate relief, and to give us time in which we might perhaps reduce the tumor by electrolysis or the internal and external use of iodine; or these measures failing, we could then leisurely enucleate the gland. Bronchocele may produce death by pressure laterally, or by suffocation from pressure upon the trachea anteriorly; or a lobe of the gland may develop between the œsoph-

agus and the trachea and produce pressure posteriorly. In this case the pressure was exerted laterally. Coming more particularly to the discussion of the paper presented to-night, I feel that it should not go without a few words of criticism. As I believe that an old adage is that the proof of the pudding is in the eating of it, and as intubation has been performed nine times without a success by this new procedure, I would feel that there is little to recommend it. First, in regard to the position of the tube; the author recommends that the tube be reversed, and instead of placing it with the beveled surface forward and the shoulder projecting backwards, he recommends the tube turned so that the shoulder will project forward and the beveled surface backwards. A case has been reported to me in which there was complete perforation at the base of the epiglottis from the pressure of the beveled surface of a straight tube. The most perfect tubes are now made with the upper surface curved slightly backwards so that no pressure will be exerted upon the anterior wall. If we turn the tube around and place it with the projecting shoulder forwards, how much greater must be the danger from ulceration. Again, the author refers in his illustration to a tube with a shoulder broad posteriorly, a tube that has been discarded some time since, for it has been found that a tube with an olive-shaped head fits the larynx much better than the old tube. I think the author is mistaken about the head of the tube riding high and riding high and resting upon the arytenoid cartilages. It depends altogether upon the judgment used in the selection of the tube. If a tube is used larger than is appropriate for the age of the patient, it will be found that while the tube can be passed into the trachea without difficulty, yet the head will not sink into the larynx, and then it will ride high and swallowing becomes very difficult indeed; but if the tube has an olive-shaped head and is appropriate to the age, then it will sink into the cavity of the larynx, resting upon the vocal cords, and swallowing is attended with but little difficulty. In regard to the length of the tube, it

would seem to me that little would be gained by making it shorter; indeed, this was one of the reasons of Bouchut's failure thirty years ago. You can readily see if we use a short tube, one simply projecting through the larynx, there would be much greater danger from detachment of false membrane below the tube. In offering these criticisms it is with no unkind intent, or for the purpose of discouraging attempts at improvement. While I have now performed this operation over one hundred times, and with a success rarely attained by tracheotomy, yet I do not consider the instruments fully perfected.

Dr. Christian Fenger said: I shall not say anything about intubation of the larynx according to Dr. Hoadley's method, further than if there is a possibility of avoiding the difficulty in swallowing, then that is a very important point. And if a change in the position and shape of these tubes will help us to avoid that, it will make intubation still much more valuable than it has been heretofore. But I will say a few words in regard to goitre, as Dr. Waxham has shown us this very interesting specimen, and as this is of great importance. As Dr. Waxham says, pressure from the goitre on the trachea causes the so-called sabre sheath trachea with the subsequent stenosis, either from pressure or from softening of the rings from pressure and atrophy. And that is not the only danger in goitre. There are goitres where the trachea is perfectly open, and still a too often fatal dyspnœa occurs. Those are the causes where the recurrent laryngeal nerve is affected by pressure from the tumor so as to cause symptoms of posticus paralysis. Thus we see cases where extirpation of the goitre has been made to relieve respiratory difficulties. We see that thus the respiratory difficulty remains in spite of the removal, sometimes for a time, sometimes forever; the latter when no repair of the nerve is possible. Besides these two classes of danger to goitre patients, there is a third met with, of course only in severe cases. It consists of a spasm of the glottis, severe and continuous enough to terminate in sudden death. How this spasm originates is as yet unknown. The authors having paid most attention to this subject feel inclined to believe that pressure from the goitre on the pneumo-gastric nerve causes irritation of the vagus centre of the brain, and reflex contraction of the muscles of the glottis. These are the cases where goitre patients in apparently good health, with no dyspnœa, or with a slight occasional attack, will die suddenly. For instance, a patient is well and around amusing himself during the day, and in the night a sudden dyspnœa sets in and the patient dies before anything can be done. Intubation with the long tube in a goitre patient shown by Dr. Waxham may be of very great importance as a means of relieving suffocation attacks in goitre.

Dr. Ferdinand Henrotin said: My position is very strongly in favor of that taken by the author of the paper, and as Dr. Waxham says the eating of the pudding tells us about the making, my experience has been directly the opposite to that of Dr. Hoadley. I have only had a few cases, but if they are of any importance in elucidating this point, I take pleasure in giving them. I believe in having the tube facing in the way mentioned in the paper. My first case was about a year ago, the patient being brought to me from out of town. As it was my first case I took particular pains to follow the regular method as pointed out by those who had introduced it, and so introduced the tube with the upper face looking forward and upward, that is, the upper plane at the entrance. The child threw up the tube within ten minutes. I immediately replaced it, and while he remained in the office he was perfectly free in his breathing and entirely relieved from stenosis. In spite of my endeavors to have him remain, he was taken to his home in the country, the tube remaining in place. About eight o'clock the next morning he coughed up the tube. He was all right for an hour, then began to choke up again, and in another hour died from stenosis. In another case I had immediately after, there was no relief. I introduced the tube four different times; I had it in the larynx and it remained in position, but the child was not relieved. I intubed a third child, and it died. These three cases were all with the tube in the way mentioned by Dr. O'Dwyer, and they all died. Following that I had three successful cases, and the tube was introduced the other way, facing in the other direction. In one of the cases I had no particular trouble in taking the tube out, but I had more or less trouble in introducing it, a little more than the other way. These cases all recovered. I had a case that recovered, a child of seventeen months, who retained the tube four days and coughed it up himself. Following that and a little talk I had with Dr. Bartlett on the subject, I again resumed the method of Dr. O'Dwyer, and placed the tube in the other direction, and that child died. Day before yesterday I was called to place a tube, and I introduced it without difficulty. I put the tube in about 9 o'clock in the evening, and yesterday, a little less than twenty-four hours after putting in the tube according to the O'Dwyer method, it was coughed up by the patient. I went back last evening with Dr. Cunningham, and said, "Now I am going to put the tube in the other way, and see if the patient coughs it up." I replaced the same tube, facing the other way, and he has had no difficulty as yet in retaining it. I have had four cases intubed by the O'Dwyer method, with four deaths; three cases with the tube turned the other way, all recoveries. I suppose it is a coincidence, to a great extent. The eighth case has not progressed far enough to state whether the child will recover. In regard to the advantages of this method, so far I have never had a tube coughed up that was put in in that way, except one, on the fourth day, but the child recovered. It seems to me the tube holds much better, it sinks into the larynx and in most cases disappears, you cannot feel it with the finger, while if it is turned the other way you can feel the edge of it with your finger. So far as the extraction of the tube is concerned, except in two instances I had no particular difficulty. As regards swallowing liquids, so far as my observation goes I think it is speaking a little strongly to say that the patients can swallow; I do not think they can swallow much; I feed them on semi-solids; I cut a raw

oyster in pieces and let it slip down; a custard and the white of an egg that slip down easily, and that, with little pieces of ice to quench the thirst, has usually succeeded with me. The disadvantage that I consider attaches to the short tube is that the expulsive effort at coughing would frequently cause it to be coughed up. The length and weight of the tube must be an element in keeping it in place. It seems to me we are using too small tubes. I am using the second size in a child of four years, and getting along quite well. As far as the difficulty of introducing a long tube is concerned, I simply start the tube, and as it slips into the larynx withdraw the obturator, and just as it comes out of the tube my finger slips into its place and pushes the tube home.

DR. E. FLETCHER INGALS said: I have had no practical experience in putting in the tube *the wrong way*, and I do not know how well it may turn out, but anatomically it is certainly wrong unless the shape of the tube be modified. It may be that with the head of the tube modified it would sink into the larynx, as recommended by the author of the paper, but with the tube as constructed by Dr. O'Dwyer it does not seem to me a safe procedure to insert it wrong side foremost, for fear of pressure upon the epiglottis causing ulceration. As to the effects of deglutition, if the tube fitted and would set deep in the larynx and remain there, of course the patient could swallow more readily. It seems to be the experience of the last speaker that these patients do not always swallow readily even when the tube is seated deeply in the larynx, and I am inclined to believe that unless some device can be invented to prevent the entrance of fluid it is better that the patient should take none. Where I have introduced the tube it has been for other physicians, so that I was usually unable to watch the subsequent treatment, but in those that have recovered I have insisted that they should drink absolutely nothing. In the last case I insisted upon this so strongly that I cautioned the parents if they gave the child a teaspoonful of water they would kill it. The child will want to drink very badly after the first twenty-four hours, but it is not a necessity for a few days. If no fluid is allowed the patient is not nearly as likely to have bronchitis or pneumonia as when it is permitted to drink. The child may have ice, it may have enemas, and may have soft solids in abundance. As to the length of the tube, I agree with the last speaker that the long tube is the better. One of Bouchot's mistakes was that he made his tube too short. But the principal reason for his failure was that he attacked tracheotomy; he not only wanted to introduce his tube, but he wanted every one else to stop tracheotomy. I would like to know what success Dr. Waxham has had with the rubber collar in preventing the entrance of fluids into the air passages.

DR. JOHN W. NILES said: My observation so far leads me to think that it does not make very much difference which way you introduce the tube as regards the patient's ability to swallow fluids. In neither way can this be done without exciting cough. In the two cases in which Dr. Henrotin introduced the tube for me he introduced it the wrong way, and they swallowed fluids better than I expected they would. The next case I had I introduced it myself the wrong way, the same as he did the others. The child had more difficulty in swallowing than the others had; on the third day he coughed the tube up, and when I reintroduced it, it was in the way recommended by Dr. O'Dwyer, and there was a marked improvement in his ability to take liquids. In fact, he swallowed better than the other two. He succumbed to the disease six days after the tube was first introduced.

DR. F. E. WAXHAM said: In regard to the rubber attachment which I have recently devised, I certainly think it a great improvement. Some may not desire to use the artificial epiglottis attached to the rubber collar, in which case it can be removed and the tube will still be a great improvement, inasmuch as, the head being small and surrounded by the rubber, it will fit the larynx more perfectly, there will be less irritation, and ulceration will be impossible. I have recently saved two little patients in which this device was used, and have also employed it in other cases with advantage. I agree with Dr. Ingals that it is best to keep water from the little patients as far as possible. I usually advise ice-cream, a very little at a time, or that a small piece of ice be placed in a cloth and held in the mouth. This relieves the urgent thirst without causing the frequent coughing that arises from the endeavor to swallow water.

DR. HOADLEY, in closing the discussion, said: As I mentioned in the paper, I started out in this matter of intubation really on my judgment as to the position the tube was designed to take in the larynx, for I had not given the subject sufficient attention to remember that the tube was designed to rest high in the larynx, and my experience has been so very pleasant, so far as the non-interference with the function of the throat is concerned, that I have decided in my own mind that deep tubing is preferable to intubation. The cases that I have tubed in that manner were all bad cases, and not in a single one could I give a favorable prognosis. They were all promptly relieved, and that was all I expected to attain from the tubing. I have recommended the short tube; the only advantage that the long tube can possibly have over the short one is its weight, except in rare cases, and then its length is of advantage. In the majority of cases of laryngeal stenosis the obstruction is entirely in the larynx, and when it does extend down into the trachea the probabilities are that the child will die of continued extension, and in such a case the long tube can be introduced. In the nine cases I tubed in this manner I used the long tube, so I cannot say whether the short one would have relieved the stenosis. In one autopsy where there was laryngeal diphtheria there was no diphtheritic exudation in the trachea, so that the extension of the tube to the seventh ring was unnecessary. In reference to the position of the tube resting against the epiglottis, as in the O'Dwyer method, I would state that the epiglottis folds down and bears first upon the shoulder of the tube, then closes its orifice, but it cannot perfectly close the larynx. Dr. O'Dwyer has

had ulceration of the epiglottis with perforation. You might think it would be a great deal worse to turn the tube around, that the pressure would be greater upon the epiglottis, but when I turn the tube around it goes half an inch lower, and the projection of the tube that is supposed to touch the epiglottis does not touch anything, and the mucous membrane is not pressed upon at all. Introducing the tube in the O'Dwyer method it will not go into the larynx; you can push it down and still it can be felt above the larynx, so when the epiglottis folds over, it must necessarily come against the tube. By turning the tube around, sinking it well into the larynx, it goes down so far that in a small larynx you cannot touch it with the finger, it goes down as far as the attachment of the apex of the epiglottis with the thyroid cartilage. The epiglottis folds down over the larynx, the laryngeal tube is still free below it, resting on the vocal cord, so that it can produce no ulceration of the epiglottis. As to the vocal cords, Dr. O'Dwyer says that ulceration is rare in that situation. That is because the pressure is slight, and not attended by friction, as in the epiglottis. Northrup says you must press the tube well down into the larynx. In doing this it rests against the epiglottic cartilage and its projection presses back against the arytenoid cartilages, pressing them wide apart in the most disagreeable manner. It is like putting the right foot into the wrong boot. It does not fit or rest easy at any point. Turn the tube around and it rests comfortably in the larynx without one point of pressure, the only pressure induced is that of swallowing, which is not sufficient to produce ulceration. I have never had any trouble in introducing the tube except in one little patient in whom, it seemed to me, the larynx went down to the sternum, and it was with great difficulty that I reached the orifice of the larynx, but when I did finally engage it the tube was introduced readily. To facilitate extraction I have had constructed a cup-shaped depression on the head, instead of the oval convex surface with the hole directly in the summit. With the oval head, unless you strike the aperture itself you are not likely to find it, as the extractor will invariably glide to the outside of the tube. With the cup-shaped head, partly from the tube being surrounded by the larynx, the extraction is greatly facilitated. My patients have all, with the one exception mentioned, been able to drink fluids; they have been able to drink two or three swallows without coughing. Occasionally there was some irritation; they would drink a large swallow and cough, immediately drink again and then cough, but not one refused to drink. I had one case that did recover. Dr. Waxham performed the operation for me, introducing the tube in the O'Dwyer method. That patient wore the tube nearly two weeks, so long that it took between two and three weeks before the child could again talk, but it did not wear it long enough to get used to swallowing without coughing. It could not swallow fluids at all and was fed with the greatest difficulty, a part of the time by the stomach tube. The object of the rubber collar with its valve-like attachment is, as I understand it, to close the orifice of the tube. Inasmuch as the epiglottis will close the tube by its automatic action of folding down over it, I regard the rubber top as being wholly useless. Not only is it useless, but the valve standing up in constant apposition with the epiglottis is a source of additional and continued irritation.

STATE MEDICINE.

LAW REGULATING THE BUSINESS OF PHARMACY IN THE STATE OF NEBRASKA.

SECTION 1. That there shall be established in the State of Nebraska a Board to be styled the Nebraska State Board of Pharmacy. Said Board shall consist of the Attorney-General, Secretary of State, Auditor, Treasurer and Commissioner of Public Lands and Buildings, and said Board shall appoint five examiners, or secretaries, who shall be skilful retail apothecaries of seven years practical experience, actually engaged in said business in the State of Nebraska; and said secretaries shall assist said Board in conducting all examinations herein provided for, and in the performance of any of its duties. Each of said secretaries shall receive a compensation of $5 per day for each day's service actually and necessarily performed, and such necessary expenses as shall be audited and found just and reasonable by said Board for attending the meetings thereof, said secretaries or examiners to be selected from ten practical pharmacists recommended by the Nebraska State Pharmaceutical Association;

Provided, That all such services and expenses, and all the necessary expenses of said Board, shall be paid out of the moneys received by said Board for fees. All moneys received in excess of said per diem allowance, and other expenses above provided for, shall be paid into the State treasury at the end of each year, and so much thereof as shall be necessary to met the current expenses of said Board shall be subject to the order thereof, if, in any year the receipts of said Board shall not be equal to its expenses. The Board shall make an annual report and render account to the State Auditor and to the Nebraska State Pharmaceutical Association of all moneys received and disbursed by it pursuant to this act. And the State of Nebraska shall in no case be liable for any such compensation or expenses. *And provided further*, that said Board shall have the power to discharge any of said secretaries at any time, and to fill any vacancy in the position of secretary whenever from any cause such vacancy exists.

SEC. 2. The said Board shall, within thirty days after its appointment, meet and organize by the election of a President and a Secretary from its own members, who shall be elected for the term of one year, and until their successors are elected, and shall perform the duties prescribed by the Board. Said Secretary shall, in addition to his compensation as a member of said Board, receive a further sum not to exceed $100 annually for his services as said secretary. It shall be the duty of the Board to examine all appli-

cations for registration submitted in proper form; to grant certificates of registration to such persons as may be entitled to the same under the provisions of this act; to investigate complaints and to cause the prosecution of all persons violating its provisions; to report annually to the Governor and to the Nebraska State Pharmaceutical Association upon the conditions of pharmacy in the State, which said report shall also furnish a record of the proceedings of the said Board for the year, and also the names of all pharmacists registered under this act. The Board shall hold meetings for the examination of applicants for registration, and the transaction of such other business as shall pertain to its duties, at least once in four months, said meetings to be held on the first Tuesdays of March, July and November in each year; and shall make by-laws for the proper fulfillment of its duties under this act; and shall keep a book of registration in which shall be entered the names and places of business of all persons registered under this act, which book shall also specify such facts as said persons shall claim to justify their registration. The record of said Board, or a copy of any part thereof, certified by the Secretary to be a true copy, attested by the seal of the Board, shall be accepted as competent evidence in all courts of the State. Three members of said Board shall constitute a quorum.

SEC. 3. Every person who shall, within three months after the passage of this act takes effect, forward to the Board of Pharmacy satisfactory proof, supported by his affidavit, that he was engaged in the business of a dispensing pharmacist, on his own account, in this State at the time this act takes effect, in the preparation of physicians' prescriptions, or that at such time he had been employed or engaged three years or more as a pharmacist in the compounding of physicians' prescriptions, and was at said time so employed in this State, shall, upon the payment to the Board of a fee of $2, be granted the certificate of Registered Pharmacist. *Provided*, That in case of failure or neglect to register as herein provided, such person or persons shall, in order to be registered, comply with the requirements provided for registration as a licentiate in pharmacy herein after described.

SEC. 4. No person, other than a licentiate in pharmacy, shall be entitled to registration as a pharmacist except as provided in section 3. Licentiates in pharmacy, in the meaning of this act, shall be such persons, not less than 18 years of age, who shall have passed a satisfactory examination touching their competency before the Board of Pharmacy. Every such person shall, before an examination is granted, furnish satisfactory evidence that he is of temperate habits, and pay to the Board a fee of $3; *provided*, That in case of the failure of any applicant to pass a satisfactory examination, the money shall be held to his credit for a second examination at any time within the year. The said Board may grant certificates of registration, without further examination, to the licentiates of such other Board of Pharmacy as it may deem proper, upon a payment of a fee of $2.

SEC. 5. The said Board may grant, under such rules and regulations as it may deem proper, for a fee not exceeding $1, the certificate of registered assistants to clerks or assistants to pharmacy, not less than 18 years of age, who at the time this act takes effect, shall be engaged in such service in the State, and have been employed or engaged two years or more in the practice of pharmacy, but such certificate shall not entitle the holder to engage in such business on his own account, or to take charge of or act as manager of a pharmacy or drug store.

SEC. 6. Every registered pharmacist, or registered assistant, who desires to continue the practice of his profession shall annually, after the expiration of the first year of his registration, during the time he shall continue in such practice on such date as the Board may determine, pay to the said Board a registration fee to be fixed by the Board, but which shall not exceed $1 for a pharmacist or 50 cents for an assistant, for which he shall receive a renewal of said registration. Every person receiving a certificate under this act shall keep the same conspicuously exposed in his place of business. Every registered pharmacist or assistant shall, after changing his place of business or employment, as designated by his certificate, notify the secretary of the Board of his new place of business. If any pharmacist or registered assistant shall fail or neglect to procure his annual registration, or to comply with the other provisions of this section, his right to act as such pharmacist or assistant shall cease at the expiration of ten days from the time of notice of such failure to comply with the provisions of this section shall have been mailed to him by the secretary of said Board.

SEC. 7. Any registrations obtained through false representation shall be void, and the Board of pharmacy may hear complaints and evidence, and may revoke such certificates as it may deem improperly held.

SEC. 8. Any proprietor of a pharmacy who, not being a registered pharmacist, shall, ninety days after this act takes effect, fail or neglect to place in charge of such pharmacy a registered pharmacist, or any such proprietor who shall by himself, or any other person, permit the compounding or dispensing of prescriptions, or the vending of drugs, medicines or poisons, in his store or place of business, except, by, or in the presence, or in and under the supervision of a registered pharmacist or registered assistant; or any person, not being a registered pharmacist, who shall take charge of or act as manager of such pharmacy or store, or who, not being a registered pharmacist or registered assistant, shall retail, compound or dispense drugs, poisons or medicines of any kind, or any person violating any other provision of this act to which no other penalty is herein attached shall be deemed guilty of a misdemeanor, and for every such offense, upon conviction thereof, shall be punished by a fine of not less than $10, or or more than $100, and in default of payment thereof, shall be imprisoned not less than ten days, nor more than ninety days, or both such fine and imprisonment, in the discretion of the court.

SEC. 9. Nothing in this act shall apply to the busi-

ness of any retail dealer engaged in business at a distance of not less than five miles from the place of bnsiness of any registered pharmacist; nor with the exclusive wholesale business of any dealer, except as provided in section 10, nor with any resident registered physician dispensing his own medicines on his own prescriptions.

SEC. 10. No person shall add to or remove from any drug, medicine, chemical or pharmaceutical preparation, any ingredient or material for the purpose of adulteration or substitution, which shall deteriorate the quality, commercial value or medical effect, or which shall alter the nature or composition of such drug, medicine, chemical or pharmaceutical preparation, so that it will not correspond to the recognized tests of identity or purity. Any person who shall thus willfully adulterate or alter, or caused to be adulterated or altered, or shall sell or offer for sale any such drug, medicine, chemical or pharmaceutical preparation, or any person who shall substitute or cause to be substituted one material for another, with the intention to defraud or deceive the purchaser, shall be guilty of a misdemeanor and be liable to a prosecution under this act. If convicted he shall be liable to all the costs of the action and for the first offense be liable to a fine of not less than $10 or more than $100, and for each subsequent offense a fine of not less than $25 or more than $150. On complaint being entered, the Board of Pharmacy is hereby empowered to employ an analyst or chemist, whose duty it shall be to examine into the so-called adulteration, substitution or alteration, and report upon the result of his investigation, and if the said report shall be deemed to justify such action, the Board shall duly cause the prosecution of the offender, as provided in this act.

SEC. 11. All suits for the recovery of the penalties prescribed in this act shall be prosecuted in the name of the people of the State of Nebraska, in any court having jurisdiction, and it shall be the duty of the prosecuting attorney of the county where such offense has been committed to prosecute all persons violating the provisions of this act, upon proper complaint being made to them.

SEC. 12. The pharmacist of every house dispensing and compounding medicines, registered under this act, shall be exempt and free from all jury duty in the courts of this State.

SEC. 13. This act shall take effect and be in force from and after its passage and publication according to law.

DOMESTIC CORRESPONDENCE

RUMEX ACETOSA IN CANCER.

Dear Sir:—I have recently seen several communications in the journals in regard to the rumex acetosa or small-leafed sorrel. I have also had some experience with the herb that may be of some interest to the profession.

In 1849, directly after I began practicing medicine, an old gentleman, a very warm friend, proposed to give me a secret remedy for cancer, which he said he had obtained from a brother, who was a graduate of Jefferson Medical College, and then practising in one of the interior towns of Pennsylvania. He said it would cure every time without fail, and he brought out an old worn sheet of unruled foolscap paper, written over one-half of its surface, minutely detailing the season in which the broad-leafed, or horse-sorrel, was to be gathered and prepared. According to the recipe the directions must be followed out most scrupulously or the efficiency of the remedy would be impaired. The herb was to be gathered at a certain stage of development, bruised in a wedgewood or glass mortar, the juice expressed out on a pewter plate, dried in the shade to the consistence of honey, then spread on chamois skin or buck skin, and, after abrading slightly the surface of the diseased part, to be applied daily till the diseased tissue separated from the sound, when the dead mass could be easily removed. After this the best dressing is a weak solution of the medicine in water.

The different species of rumex have the same chemical constituents, and the broad-leafed sorrel not being easily obtained in the locality where I then was, I gathered a quantity of the small-leafed, or sheep-sorrel, at the proper time, to-wit: when the bloom began to drop, and bruised it in an iron mortar and expressed the juice out on a common delf-ware plate, as I was not the owner of a pewter one, and when evaporation had brought it to the proper consistence I put it up in a gallipot. In the first case of epithelioma that came under my care I used it, and was successful. I have used it frequently since, both successfully and unsuccessfully, and I feel safe in saying that the diagnosis, in some at least, of the successful cases, was correct, as it was confirmed by those high in authority and by the microscope. I think it is fair to admit that it is one of the best and safest escharotics we can use in such cases; and when our patients are not willing to submit to removal by the knife, when the glands are not involved, and the disease has not encroached too much on the underlying tissues, we can safely use this in preference to any other escharotic. Of course the use of any of this class of remedies cannot be compared to immediate removal by surgical procedure.

Very truly yours, JAMES LAMB, M.D.

Aurora, Ind., Feb. 21, 1887.

FUNGUS CEREBRI REDUCED BY PRESSURE.

Dear Sir:—An interesting case of cranial fracture, followed by fungus cerebri, removed by ligature, and reported in THE JOURNAL of February 5, prompts me to report a case somewhat like it, and with a like favorable result from different treatment.

F. M., aged 2½ years, was kicked by a horse, on the left superior posterior parietal bone, crushing the bone, and producing compression of the brain, without breaking the skin, but followed by a swelling the size of an egg. I saw the child about 4 o'clock in the afternoon of the same day, and immediately made an incision the whole length of the tumor; coagulated blood, and quite a considerable amount of brain,

following the knife. A conical incision enabled me to see that the bone was comminuted, and the brain investments very much torn. I removed eleven pieces of bone; trimmed off the jagged parts of the dura mater; brought the cut surfaces of the scalp together by sutures; and dressed with the water dressing. The case progressed favorably for nearly two weeks, when a fungus cerebri appeared and grew to the size of a hen's egg, which I proposed to excise, but as the mother refused her consent, I took an old leaden tea-caddy I found in the house—it was in the country, some fifteen or sixteen miles from my residence—folded the plate to a proper thickness, and with a hammer made it concave. I then placed over the growth two thicknesses of lint, smeared over with cerate, a linen compress on that, then my lead compress, and retained all by moderate pressure with a bandage, which was drawn tighter from day to day, until the entire growth was absorbed. In due time the external wound healed, and the child grew to be as bright and intelligent as the other children of the family. Very truly yours,

F. WALTON TODD, M.D.

Stockton, Cal., Feb. 14, 1887.

"THE ETIOLOGY AND CURE OF ASTHMA."

Dear Sir:—A paper under the above title recently appeared in THE JOURNAL which called out some comment to which the author has objected in the last issue (March 19). In this last note he seems to have gone quite as far as the reviewer in refuting his former claims.

From the comprehensiveness of the title and from the tenor of his paper one would naturally suppose he had some information to impart about asthma, but he now claims that he was not writing about asthma, but about "a rarer form of the disease." Every laryngologist, and probably nearly every general practitioner, knows that cauterization of the turbinated bodies will cure rare cases of asthma.

If the gentleman had entitled his paper "A Case of Asthma Benefited by Treatment," and had confined his subsequent remarks to a statement of facts as pointed out in the review, he would not have been troubled by the irritation into which he has wrought himself; but might have rested content with the knowledge that he had given a most excellent and interesting account of his own sufferings and the manner in which they were relieved. The charge which he makes of misrepresentation will be found wholly gratuitous by those who care to read the review. Very truly yours,

E. FLETCHER INGALS.

64 State St., Chicago, March 20, 1887.

MISCELLANEOUS.

THE MEDICINE AND HYGIENE OF THE TALMUD.—Since the publication of my address on "Jewish Hygiene and Diet in the Talmud and various other Jewish Writings heretofore Untranslated," delivered before the American Medical Association in 1884, at Washington, D. C., I have been constantly urged by the profession to translate and publish the medical and hygienic portion of this "wonderful" compilation, the Talmud. I therefore beg to state to the profession at large that I have concluded to translate and publish from the Talmud everything relating to medicine, providing that, prior to the undertaking, I can receive one thousand subscribers for the book. Such subscription may be addressed to me in the following words:

I, the undersigned, agree to take one (or more) copy of the "Talmudic Medicine" of Dr. von Klein, which shall not exceed $5.00 in cost for 500 octavo pages, or at $1.00 for each 100 pages, payable on delivery. Under no other circumstances will I undertake this labor. No more copies will be published than the number subscribed, and fifty extra copies for distribution to the principal medical journals for review. CARL H. VON KLEIN.

110 E. 2d St., Dayton, Ohio.

[Exchanges are requested to publish or notice as soon as possible.]

THE MIAMI MEDICAL COLLEGE has, recently, become the Medical Department of the University of Cincinnati.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM MARCH 12, 1887, TO MARCH 18, 1887.

Major C. H. Alden, Surgeon, ordered for duty at the U. S. Military Academy, West Point, N. Y., relieving Lieut.-Col. Andrew K. Smith, Surgeon, who will report by letter to the Surgeon-General. S. O. 52, A. G. O., March 5, 1887.

Capt. Wm. F. Carter, Asst. Surgeon, granted leave of absence for one month, on surgeon's certificate of disability. S. O. 25, Dept. Texas, Feb. 24, 1887.

Capt. Geo. McCrury, Asst. Surgeon, leave of absence extended one month. S. O. 52, A. G. O., March 5, 1887.

Capt. R. W. Johnson, Asst. Surgeon, ordered for temporary duty at U. S. Military Academy, West Point, N. Y. S. O. 51, A. G. O., March 4, 1887.

First Lieut. Guy L. Edie, Asst. Surgeon, granted leave of absence for one month, to take effect about March 1, 1887. S. O. 27, Dept. Texas, Feb. 28, 1887.

Capt. Wm. F. Carter, Asst. Surgeon, leave of absence extended four months, on surgeon's certificate of disability. S. O. 57, A. G. O., March 15, 1887.

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY, DURING THE WEEK ENDING MARCH 19, 1887.

Bradley, George B., Surgeon, detached from Marine Hospital Philadelphia, Pa., and granted six months' leave.

Steele, Jno. W., P. A. Surgeon, ordered to Marine Hospital, Philadelphia, Pa., without delay.

Parker, J. B., Surgeon, ordered to the U. S. S. "Ossipee."

Siegfried, C. A., Surgeon, ordered to Baltimore, Md., on special duty.

Hugg, Joseph, Surgeon, placed on retired list March 17, 1887.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE FOR THE WEEK ENDED MARCH 12, 1887.

Banks, C. E., P. A. Surgeon, to proceed to Chicago, Ill., and assume temporary charge of the service. March 10, 1887.